The Catholic University Pedagogical Series

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VOL. V

PHILOSOPHY OF EDUCATION

Philosophy of Education

BY

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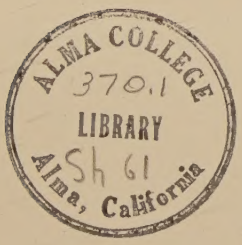

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To
Genevieve Garvan Brady

In grateful acknowledgment of effective cooperation in elevating the standards of our Catholic schools and in drawing them into closer unity

this book is dedicated.

PREFACE

The Philosophy of Education furnishes a common meeting ground for all who are interested in any phase of educational work. The correct solution of the problems which it discusses concerns the pastor and his people no less than it does the teacher and his pupils.

The Catholics of this country are justly proud of their schools. The magnitude attained by the Catholic school system, during the last few decades, in spite of the double taxation of our people which is involved, bears eloquent testimony to the faith, generosity and loyalty of our Catholic people. The excellence of the work accomplished by the schools for our Catholic children along intellectual, moral and religious lines is abundant compensation for all the sacrifices made.

The time is now at hand for earnest consideration of the great fundamental principles which make for the integration and standardization of our schools. They have all sprung from Catholic impulse and they all share in the common aim of the preservation of the Catholic faith of our children and the salvation of their souls. But there is urgent need of more uniformity in curricula and methods among the several hundred teaching communities which are at present conducting the schools. There is need also of clear vision to save our schools from being injuriously affected by the educational philosophy which is reducing itself to practice in our state schools and which is finding persuasive expression in educational manuals and in current literature.

Both in the problems selected for discussion in this book and in the method of their treatment, the needs of

the pastor and of our intelligent Catholic laity have been kept in mind as well as the needs of the teachers actually engaged in the work of our schools. It is a matter of grave importance that our Catholic laity should have a thorough understanding of the meaning of Catholic education, of the needs of our schools, and of the relationship which should exist between their work and that of the state schools. It is not to be expected, of course, that the reader will in every instance agree with the author in the solutions arrived at. The important thing is to arouse interest and center attention on the chief problems that are calling for a fresh study and a new formulation in the light of the present social and economic changes and of the present trend of state education. The pastor can accomplish much in the promotion of Catholic interest in educational matters by the discussion of many of these topics from the pulpit and the platform.

It is hoped that the book may serve as a convenient text for use in novitiate normal courses and as a means of stimulating the professional studies of the teachers who are in actual service.

The book is divided into three parts, in the first of which the nature of the educative process is examined from various points of view. In Chapter II, physical and social heredity are contrasted. The meaning of infancy, together with the possibility and the need of education, is studied. In Chapter III, attention is called to a fundamental change of far-reaching importance in the center of human interest, both in the world at large and in the educative process. In the following chapter, education is studied in one of its effects, namely, that of adjusting the individual to his environment. The fundamental and pernicious errors involved in the Culture

Epoch Theory are next pointed out. A study is then made of the child-mind under the aspects of growth and development. In Chapter VIII, the various steps are pointed out through which man, from a recognition of the controlling power of law in physical phenomena, has come to recognize the fact that, in spite of intelligence and free will, mental life in its growth and development is subject to similar laws. This phase of the work closes with a discussion of the function of experience, which has recently come into the foreground in educational literature as the key to methods.

After this study of the nature of the educative process, attention is called in the second part of the book to the various ends towards which the process should be directed by educational agencies. An attempt is made, in the first place, to determine the ultimate aim of Christian education. Once the direction is fixed, attention is then called in succession to other aims in the general order of their importance. The third part of the book is devoted to a consideration of the chief educational agencies, such as the home, the church, the school, state school systems, and the Catholic school system. The concluding chapters are devoted to a brief consideration of the curriculum and of the selecting and training of teachers in the state systems and in the Catholic system.

In the study of educational agencies, the historical point of view is dominant. This is in accordance with the theory developed in Chapter III. The nature of these institutions cannot be rightly understood by a study of their present condition or through a study of a cross-section of any one period of the past. The relation of the school to the church, the home and the state is best seen in an historical survey of the relations which the institutions

bore to each other in different countries and of the effect produced.

No attempt has been made to cover the entire field of the philosophy of education. Such a procedure would either swell the volume unduly or reduce the treatment of each topic to a mere synopsis which would lack vitality and power. The present plan was adopted in the belief that more would be accomplished by treating a few topics with sufficient fullness to awaken interest than by giving a mere outline of the whole field, however balanced might be its proportions.

Much of the matter contained in this volume has been used by the author in lectures given in various parts of the country at diocesan institutes and at the mother-houses of teaching communities of men and women between the years 1895 and 1910. Portions of it were also used as a text in courses given at the Sisters College and in the Department of Education at the Catholic University. Several chapters have appeared in their entirety in the *Catholic Educational Review* during 1916.

It is believed that sufficient reference to the bibliography is supplied in the footnotes in which acknowledgment to the sources drawn upon is made. A fuller bibliography may readily be obtained today in any educational library and need not, therefore, cumber our pages.

The author takes this occasion to make grateful acknowledgment to Dr. Pace for many valuable suggestions received in the preparation of several of the chapters of the book and to Dr. McCormick and Father McVay for suggestions and criticisms. Thanks are also due to Miss Frances Askew for assistance in preparing the manuscript and for reading the proof. T. E. S.

Feast of the Purification, 1917.

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CHAPTER I

INTRODUCTION

The Philosophy of Education is the basic element in the professional training of the teacher. In this science the teacher seeks for the meaning of the educative process as it takes place in the mind of the pupil and for the goal towards which it should be directed. He must turn to the same source for the fundamental principles which should guide in the selection and arrangement of the materials of the curriculum in the various stages of the educative process and for the educative values of the different disciplines to be employed. In these days of rapid and deep-seated social and economic changes, the work of the school is undergoing a corresponding change in character and in aim. This makes unusual demands on the philosophy of education and places added emphasis on its necessity in the training of the teacher, nor is the necessity for this science confined to the teacher. The layman, through his vote, exerts a controlling influence on the school and upon the relationship which should exist between it and other social institutions of such fundamental importance as the home, the church and the state.

The Philosophy of Education is closely related to the Psychology of Education and to the History of Education. Through the former, light is shed upon the conscious processes of the child and intelligence is gained concerning the educative process in its relationship to the unfolding powers and faculties of the individual. The philosophy of education carries these considerations up to a wider viewpoint and studies them in their relation to life as a whole and to the attainment of its aims. Through the latter, control is exerted upon the conclusions drawn both

in the psychology of education and in the philosophy of education, and further light is gained on the relations which should exist between the school and other social institutions.

The philosophy of education, the psychology of education and the history of education are linked together in their services to the teacher and interwoven with each other as the basis of his professional training. On this basis rest the other branches included in the curriculum of the normal school and the teachers college.

Philosophy, psychology and history belong to the academic rather than to the professional curriculum. They are pure sciences and, as such, are presupposed by the corresponding applied sciences, which latter belong to the professional curriculum. The aim in pure science is knowledge; the aim in applied science is action. In the former, the desire culminates in knowing; in the latter, it is not satisfied until the knowledge gained issues in action. Pure science leads to discovery, while applied science aims at invention. Applied science presupposes pure science and is limited by its development. Invention may lag behind discovery; it rarely, if ever, overtakes it, and, from the nature of the case, it never can transcend it.

Philosophy, more perhaps than any other discipline, deserves the name of pure science, since it deals with the highest aims and ultimate causes of all things. At first sight, it seems to be far removed from the strife and turmoil of actual life in this material world, and yet the practical conclusions reached in philosophy have a more far-reaching effect upon the conduct of life than do the findings of any other science. A man's philosophy, by imperceptible degrees, colors the whole of his life and affects his attitude towards all things in heaven and on

earth. In like manner, the prevalent philosophy of a people gradually transforms all their social institutions; nevertheless, the aim of philosophy, as such, is knowledge, not conduct. This, however, does not prevent the content of philosophy from exerting its practical influence. The conscious and deliberate aim in eating may be the gratification of the palate and the immediate satisfaction of appetite, but these aims do not, for all that, prevent the food from nourishing the body and from building up bone and muscle and nerve.

That portion of the field of pure philosophy which deals with the development of the mind, with the process and meaning of education, with the relations of the school to the church and the home, might appropriately be called educational philosophy, but, in spite of the information which it supplies to the teaching profession, it is an academic and not a professional discipline.

The philosophy of education, as a branch of applied science, is not concerned directly with the establishment of fundamental principles in any department of philosophy. Its business is to apply the truths and principles established by pure philosophy to the practical conduct of the educative process. It seeks to lift into consciousness and to make rational and deliberate, as well as more immediate and effective, the relation between the philosophical truth and the life and conduct of the pupil, and endeavors to guide the teacher in the manifold relations which he sustains towards his pupils in the imparting of knowledge, in the building of habits, and in the gaining of power and insight into the purposes and meanings of life.

If philosophy were an exact science, such as mathematics, the task of the writer on the philosophy of education would be lighter but, as the case stands, we

find men, in every department of philosophy, differing profoundly in the conclusions which they draw. A prevalent school of philosophy in our own day confines the meaning of life to this world, rejecting the existence of God and the continuance of personal consciousness beyond the grave as myths which have no claim to human belief. In a word, to these men human life is nothing more than a high form of animal life, and the purpose of education is to render the individual more aggressive and more efficient in the struggle for existence, either alone or in groups. They reject wholly the existence of any supernatural power which could redeem fallen man and find the highest ideal of human life laid down in the physical heredity of the child.

Over against this school of philosophy should be placed the philosophy maintained by the Catholic Church, which aims at perfecting man in the present life as a means of fitting him for a life hereafter; which seeks to suppress aggressiveness and enthrone brotherly love as the controlling power in human affairs; which finds one of the chief functions of education to be the redemption of fallen man, the elimination of low instincts, and the substitution of supernatural virtues built up in the light of faith and with the assistance of Divine grace.

The philosophy of education tends to quicken and to deepen the flow of conviction into action, of doctrine into conduct, and it is achieving these ends in ever-increasing measure in our day. The current educational literature, monographs, text-books, and popular treatises are forming all our teachers and animating their work with the current philosophy, which is, for the most part, a philosophy wholly at variance with Catholic ideas and ideals of life.

If the pure philosophy drawn upon be wholesome, the

philosophy of education will tend to make the transformation of society through the school an uplifting process. But, on the other hand, if the philosophy used as the source be false and its ideals low, the philosophy of education will have equal effectiveness in debasing life and in corrupting social institutions. It is, therefore, a matter of the utmost importance to Catholics that the philosophy of education employed in the training of Catholic teachers be not only technically efficient, but that it be such as draws from the pure fountains of Catholic philosophy wholesome principles of life.

The philosophy that leaves no room for God, for a spiritual soul, nor for a life hereafter, fixes a totally different goal for the educative process from that aimed at by the Catholic who not only believes in the spiritual side of human nature, but holds among his most firm convictions the belief in a supernatural destiny and in a redemption wrought through the merits of Jesus Christ. The educator who holds that man does not transcend the realm of animal life, will naturally endeavor to endow each coming generation of children with those qualities which have marked the success of the animal in the long biological struggle for existence. He will seek the ideal of human life within the narrow lines of physical heredity and will turn exclusively to physical sources for the means of realizing that ideal. Nor must what is here said be regarded as an accusation brought against a prevalent school of thought by an unfriendly critic. This view is expressly set forth as the ideal of the Eugenic School by many of its votaries. We select, as a typical instance of such teaching, the following passage from an address delivered before the Child Conference for Research and Welfare at Clark University in 1909, by Dr. John Franklin

Bobbitt, an alumnus of Clark University and a professor in the University of Chicago:[1]

"Since man became man, he has always looked forward to an ideal future state on earth, a Eutopia, a millennium, a City of the Sun, a Platonic Republic, where all men should be good and wise and strong. And yet, wherever man has builded a civilization in his striving to realize his ideal state, in Egypt, or Greece, or Carthage, or Rome, invariably he has met with defeat. Without exception, his state crumbles and falls. There has *always* been some invisible undermining influence, which he failed to see and to prevent.

"With the rise of the science of biology, we have discovered the secret of their decline, and have discovered the formula for counteracting it in our own case. The undermining influences were, at bottom, biological in their cause; and the formula for counteracting them in our case must likewise be biological. The formula is the simple one used by Luther Burbank in his superb creations; for all life grows on a single stem. As is the parentage so is the next generation. If the next generation is to be higher than this, its average parentage must be higher than our average. This law is fundamental, ineluctable, not to be vetoed or evaded. We may prefer to shut our eyes to the law because of its difficulty of application; we may prefer to trust to an assumed plasticity because it appears more docile to our wish; we may find it more comfortable to fall back upon the faith that good intentions cannot go wrong. These things are more pleasant, if pleasantness is our aim. But if improvement of the human stock is our aim, biological law must be followed regardless of personal wish."

[1] Proceedings, New York, 1909; p. 78.

The author of this passage leaves little room to doubt the nature of his philosophy or his views concerning human nature. His methods for improving the human race are explicitly stated to be the methods employed by the stock-breeder or the horticulturist. He explicitly denies a plasticity on the part of the individual which would permit of the effective operation of redeeming grace or the effective performance of a redeeming function by our educative agencies. The philosophy here stated, however, is extreme; it not only excludes the supernatural and the life beyond the grave, but it runs counter to sound biological doctrine as well. Dr. Bobbitt's concentrated attention on the processes of physical heredity seems to have blinded him to the fact that man's chief privilege lies in social heredity and that it is to this source he owes his place of supreme control and headship in the world of physical life. This phase of the subject is brought out more explicitly in the following passage in the same paper:

"At present our doctrines of heredity are not as they were. We are coming to see that heredity is dominant in the characters of men. Human plasticity is not so great as has been assumed. A child cannot be moulded to our will. The design laid in heredity is the only one that can be worked out in actuality. The actual is only a realized copy of the potential. It is true the potential is drawn in rather broad lines thus permitting the necessary degree of adaptation; to this extent the individual is plastic. But recent statistics of heredity show that the possible deviation is not great, except downward in the direction of breaking and marring."[1]

Such a philosophy leaves no room for redeeming grace.

[1] *Op. cit.*, p. 74.

It denies to man the privilege of being "born again of water and the Holy Ghost," and seeks to develop him along merely animal lines. If this philosophy be followed out consistently, it must interpret the whole content of the child's social heredity in such a manner that it may fit into the narrow limits of animal nature.

A more systematic presentation of the philosophy which lends its support to the eugenic view will be found in Genetic Philosophy of Education, an Epitome of the Published Writings of President G. Stanley Hall, of Clark University, by G E. Partridge, Ph.D.

President Hall, in his preface, accepts it as a correct presentation of the views which he has expressed on so many occasions in public gatherings, in teachers' meetings, and in books and brochures, during the last thirty years. It has a still further significance, coming from the President of Clark University and the recognized leader of this school of thinkers, which is widely represented in the teaching staffs of the training schools for teachers throughout the country. The following passage will serve to illustrate the manner in which this school of educators seek to dispense with all sources of uplift outside the narrow confines of man's animal nature:

"Conversion is not only the center of the religious and biological change at adolescence, but it is also the clue to understanding the psychology of the higher stages of the history of the race. The conversion motive has played a great part in history, and everywhere, where civilization has reached the higher levels, it is recognized. Among primitive peoples we find its beginnings in the form of initiatory rights which symbolize the entrance of the youth into manhood, and into the position of adult responsibility. This is the beginning of primitive education. It is a

conscious effort to establish, in the mind of the youth, the best traditions of the race to which he belongs. Much in our own religion is symbolic of conversion and the adolescent change. The conquest of the world, through grief and pain, by the life of Jesus, is its greatest expression. The cross symbolizes the adolescent struggle, in which the old life of self and sin comes into sharp conflict with the new and higher motives of love and service. Here the movement is more than individual; it is racial. Jesus initiated into the world, at a time when it had degenerated as a result of individualism, a new religion, and a new culture, based upon love and self-surrender. He himself was an adolescent, and most of His disciples were youths. Every youth in becoming transformed into a normal adult thus passes through the stages through which Jesus led the world.

"The story of the Cross and of the life of Jesus is thus the great religious masterpiece of the race, most truly respresenting its higher life. In lesser form the theme appears in many literatures. Dante is the story of adolescence; the Holy Grail, the Golden Fleece, Prometheus, Boewulf, and Hiawatha all tell the same tale. It is the central theme of religion, in its highest form. Through all the lower stages of racial religion the child of this higher civilization passes, and the partial and false beliefs by way of which he reaches the truer and higher are necessary steps. When religion is true and deep, these beliefs are never merely cast aside or dropped, but the highest of all faiths retains the power of still carrying the germs of the old beliefs, and of sympathizing with all that it has once loved. Religion is, therefore, to be regarded as a product of inner growth, a natural result of the stages of feeling through which man passes.

Religion has its sanction within us, and all religious ceremonies are valuable only as they introduce the individual to powers within himself that are unexpressed. The higher truths of religion are revelations to a single self from the racial or cosmic self within him.

"The religious life presents many other problems of psychology, and has both its normal and its abnormal phases. Among the questions which are largely psychological are: prayer, obedience, sacrifice, chastity, asceticism, renunciation, creeds, dogmas, doctrines, worship, sacraments, ritual, ceremonies, priests, saints, miracles, the Sabbath, symbols, vows, oaths, sects—all these and all similar problems are open for psychological investigation, and upon psychology rests the task of restating them, and of reinterpreting all the facts. All such questions are problems of the higher emotions, and they must be studied with reference to the stages of development of the feelings, both in the race, and in the individual. Psychology must reform the ancient dogmas by showing the validity of the feeling elements upon which they rest. By this means the essentially true in religion will be reinterpreted in scientific terms, and all its practical problems will be brought into relation with questions of education and other needs of the present day."[1]

This passage indicates sufficiently both the trend of educational psychology in this country and the need of a presentation of the subject from a Catholic standpoint, both as a protection to our teachers against the dangerous doctrines that are seeping into schools of all classes and as a statement of the Catholic position for the enlightenment of non-Catholic educators. The philosophy of life

[1] Partridge, Genetic Philosophy of Education, New York, 1912, pp. 56–8.

presented by President Hall and his school stands in sharp contrast to that maintained by the Catholic Church. The one looks to man's animal nature for the highest ideal to be attained and for all the means to be employed in the educative process for its attainment. The other finds in man a higher nature which transcends animal life and claims kinship with the Pure Spirit Who created the heavens and the earth. The one looks for its ideal in the physical inheritance of the child. The other seeks it in the revelation made by God to man and it seeks for the means of realizing this ideal in Divine grace, which flows not from human nature but directly from the Deity.

As the philosophies of these two schools stand in sharp contrast to each other, so must the ways and means dealt with in the corresponding philosophies of education differ. The content and organization of the curriculum differ, the interpretation of what is taught, the selection and training of teachers, no less than the methods to be employed by the teachers and to be embodied in text-books will differ in accordance with the differences in the underlying philosophies.

But in spite of the many differences discernible between the fundamental principles which these two schools seek to apply to the educative process, and in spite of the divergent means and ends which must forever separate a naturalistic or a materialistic philosophy from the philosophy of the Catholic Church, a substantial agreement exists between them on certain points of fundamental importance. Men who have learned to think in terms of biology, no matter how widely they may differ in their religious beliefs or in their fundamental philosophy of life, have learned to look upon education as a process by which society seeks to perpetuate its institutions and

its life and to adjust each generation of children to the environments into which they must enter at the close of the school period. It is true that, according to one system of philosophy, this adjustment is ultimate, while the other system of philosophy maintains that it is but a means to an end and that the ultimate end of all life and of all human striving is to be found in a future life. Nevertheless, these two schools maintain with equal force that it is the business of education to adjust the child to earthly environments, to the social institutions in which he must act his part. The child must be fitted for effective citizenship. He must be rendered worthy to take his place in the home. And to these two the Church would add the further demand that he be properly prepared for membership within her fold. It should be further noted that there is no conflict between these various adjustments, since the more perfectly the individual is adjusted to the life of the state and the life of the home the more worthy he will be of membership in the Church. The Church adds to what is demanded by the state and the home. And the Christian philosopher makes the further claim that through this very addition the preceding adjustments are rendered more secure and more perfect.

Part I

The Nature of the Educative Process

CHAPTER II

PHYSICAL AND SOCIAL HEREDITY

Notwithstanding the spiritual life of which he is the fortunate possessor, man is still an animal and as such, in common with all the other higher animals, he comes into the world endowed by his ancestors with a definite physical heritage, which includes, in addition to a definite morphological structure, certain fixed modes of activity such as automatic acts, reflexes and instincts. These modes of activity, however, while essential to the maintenance of his animal nature, are unable to carry him beyond its confines.

The older and more deep-seated of these animal modes of activity are as fully developed in man and as fixed in character as they are in any of the higher animals. Man does not learn through his experience or through his intelligence how to digest his food or how to free his blood from the various waste matters which are derived from the functions of the organism. But it is otherwise with man in his instinctive activities. He is born into the world with an instinctive equipment which is little more than rudimentary and which is barely sufficient to carry him forward to such a stage of his individual development as will permit his experience and his intelligence to come to his assistance.

The young oriole who has never witnessed the process of nest-building will, when the proper time comes, build his nest in practically the same manner that all other orioles build their nests. The beaver exhibits great skill in building his dam, but the skill is born with him: it comes in no part from his experience or through imitation of other beavers. In fact of the mere animal in any stage of his

development, it may be said with truth that "the design laid in heredity is the only one that can be worked out in actuality. The actual is only a realized copy of the potential. It is true, the potential is drawn in rather broad lines, thus permitting the necessary degree of adaptation; to this extent the individual is plastic."[1]

Had Dr. Bobbitt applied these words to the mere animal, no man acquainted with the fundamental laws of life would question his statement. But even those who are disposed to deny to man a spiritual nature are compelled by the facts in the case to reject this statement when applied to him. The undeveloped state of his instincts renders him eminently plastic and makes social inheritance both possible and necessary.

From one point of view the absence of fully developed and fixed instinctive modes of activity is a disadvantage. It necessitates a long period of helpless dependence. The young of the human species must put forth active efforts during many years in order to acquire modes of activity which exist fully developed in his parents, whereas the young animal without any effort on his part inherits the fully developed adult modes of activity.

These disadvantages, however, are more than counterbalanced in the human infant. It will be noted, in the first place, that the animal inherits from his direct ancestors only, whereas the modes of activity to be established in the human infant through education reflect the riches and the experience of the entire race. Secondly, the animal inherits modes of activity which have been called forth to meet conditions of the past. These modes of activity, moreover, are so fixed and rigid as to render the changes in them

[1] Bobbitt Proceedings of the Child Conference for Research and Welfare, New York, 1909, V. 1. p. 74.

needed to secure an adjustment to new and present environment a slow and difficult process. The human infant, on the contrary, is enabled to build up the new adjustments to present environmental conditions in the light of his own experience and in the light of the experience and wisdom of the race, without being hampered by an inherited rigidity in the modes of his activity. He is thus enabled to meet and to conquer such a rapidly changing environment as would promptly cause the extinction of any other known form of animal life. Thirdly, the completeness of the animal's instinctive inheritance and its rigidity impose rigorous limits upon the development of its conscious life, whereas the inchoate or vestigial instincts of the human infant leave room for a complex and extensive development in its conscious life. The conduct of the higher animal is governed throughout life almost wholly by instinct. Such modifications as may be induced in the modes of its activity by individual experience or by imitation are comparatively insignificant. The converse of this is true of man. His conduct in the early days of infancy is indeed almost wholly governed by instinct, but as he grows toward adult life, he learns to depend more and more completely upon his experience, upon his intelligence and upon the rich social inheritance which he gradually acquires. In a word, the incompleteness of the human infant's physical heredity renders it possible for him to come into possession of a social inheritance which is of incalculably greater value than the elements of physical heredity which in his case have been omitted.

The human infant is born without social inheritance but he is born with an indefeasible right to it. It is the duty of society to transmit to each child born into the world the social inheritance which it holds in trust for him. The

welfare of society itself, no less than the welfare of the individual, depends upon the fidelity and the effectiveness with which this sacred duty is performed. Primitive peoples recognized this truth long before they were able to formulate it in philosophy. As so frequently happens, the wisdom of their actions runs far in advance of the wisdom of their theory. As man emerges into civilized life, we find him everywhere seeking to organize and to perfect educational agencies for the more effective transmission to the young of the social heritage, and his advance in civilization is measured by his success in this enterprise.

President Butler, speaking of the possessions which the race holds in trust for each child says: "Those spiritual possessions may be variously classified, but they certainly are at least five-fold. The child is entitled to his scientific inheritance, to his literary inheritance, to his aesthetic inheritance, to his institutional inheritance, and to his religious inheritance. Without them all he cannot become a truly educated or a truly cultivated man."[1]

Under these five heads may be conveniently grouped the sum total of the content of education but the terms, in order to serve this end, must be used in a much wider sense than that usually attributed to them. By science, in this classification, is meant the child's adjustment to the physical world into which he is born. By letters is meant the total content of human speech, whether spoken or written. A similar extension must be granted to the other three terms in question. Once this is understood, it becomes immediately evident that from one point of view, at least, education may be regarded as the transmission by society to each individual child of the five-fold spiritual inheritance which it holds in trust for him. But it is equally evi-

[1] The Meaning of Education, New York, 1915, p. 25.

dent that the mere transmission of this heritage is not, and cannot be, the ultimate aim in education. Society in its educational activities, as in all its other activities, aims primarily not at benefiting the individual but at benefiting society. Society transmits to the individual his five-fold inheritance, but it does so to the end that the individual may become a more efficient member of society. To benefit the individual is, as far as society is concerned, secondary, and it must always remain so.

This aspect of the problem is well stated in the opening chapter of the Epitome of President Hall's Educational Writings:[1] "Man is as yet incomplete; it is likely that all his best experiences still lie before him. He may indeed be only at the beginning of a career, the end of which we cannot foresee. If this be true, the function of the present generation is to prepare for the next step. It must so live that it may become the best possible transmitter of heredity, and to the greatest degree of which it is capable, it must add to the equipment of the new generation. The efficiency with which these functions are performed is the test of the value of society, of education, and of all public institutions and private morality. All are best judged according to the service they perform in advancing the interests of mankind.

"Immediately the old ethical problem of the conflict between self interest and service comes to light. Is life devoted to the welfare of humanity entirely a life of self-sacrifice? What place is there in such an ideal for the private interests of the individual? We shall find that, on the evolutionary view, the welfare of the individual corresponds, in great measure, to that of the race, but that beyond this common good there is a sphere of self interest,

[1] Partridge, Genetic Philosophy of Education, New York, 1912, p. 3.

to live in which is to rob the future of its rights. It is the problem of education to develop the individual to precisely that stage of completeness at which he can most successfully live in the service of humanity, and at the same time enjoy a normal healthy life; and so to inspire the young with love for humanity, and so to educate their instincts and ideals that, when the rights of the individual and of the race come into conflict, the right of the race shall always be given precedence. Education of the young, thus understood, is plainly not only the most moral and vital work we do, but the most inclusive; for in a sense it involves all other practical activities. Nothing else requires so profound knowledge, nor so earnest thought, as the training of the child."

There does not appear any reason why this statement might not be accepted at its face value by any Christian educator. But Christian philosophy would carry the thought one step further by adding to the worth of the individual as a member of an earthly society his worth as a child of God and as a member of the kingdom which endureth forever. Moreover, the Christian religion does, in fact, furnish the only motive which is permanently effective in moving the individual at all times to subordinate his individual interests to the interest of society which he sees to be at the same time the interest of his Heavenly Father.

The recipient of the five-fold spiritual inheritance of the race must not hold it as a thing apart from himself in the manner in which he holds the temporal goods bequeathed to him by his ancestors. He must receive it as a vital inheritance which is to be incorporated into his life and by means of which he himself is to be transformed in every fiber of his conscious life, and by which his spirit is to be

redeemed from the trammels of his animal inheritance. Through this spiritual inheritance he is to be born again as a member of civilized society and this, in turn, implies a transition from didactic to organic methods on the part of the teacher. The five-fold spiritual inheritance must be administered to the child's soul as food is administered to his body.

This is a familiar thought in modern education, owing to the widespread diffusion in recent years of biological concepts, but the thought did not originate in our day. We find it expressed in the first page of the Gospel: "Not in bread alone doth man live, but in every word that proceedeth from the mouth of God."[1] Throughout His public life Christ frequently refers to the truth which He brought from heaven as the food of man's spiritual life: "Amen, Amen, I say to you; Moses gave you not bread from heaven, but My Father giveth you the true bread from heaven. For the bread of God is that which cometh down from heaven, and giveth life to the world."[2] And His commission to Peter was in the same terminology: "Feed My lambs; feed My Sheep."

It is true that Christ in these passages referred not to the social inheritance gradually acquired through the experience and the striving of the race, but to that higher inheritance of revealed truth which, in the providential scheme, was designed to minister to the supernatural life in the souls of men, the life into which His followers were to be "born again of water and the Holy Ghost." For the transmission of this inheritance, Christ established the greatest teaching agency that the world has ever known when He said to His Apostles: "Going therefore, teach ye all nations;

[1] Matt. iv, 4. Deut. viii, 3.
[2] John vi, 32.

baptizing them in the name of the Father and of the Son and of the Holy Ghost. Teaching them to observe all things whatsoever I have commanded you: and behold I am with you all days, even to the consummation of the world."[1]

It was natural and inevitable that the Church should concern herself with the transmission not only of revealed truth but of all the social inheritance of the race. The Apostles were warned against casting their pearls before swine. Revealed truth and divine grace were not to be given to animals but to human beings destined by the Heavenly Father to live in society as brothers, as children of a common Father. Whatever, therefore, tends to lift man's spirit into power, whatever tends to develop the bonds of love between man and man must concern those who were charged with the task of feeding the lambs and feeding the sheep of the flock.

The Church conceived of her work of education in a broader and a higher, as well as in a truer, spirit than education was ever conceived of by the philosophers of Greece or Rome, or by modern naturalistic philosophers. She does not and cannot regard man's social inheritance as split into two portions, one of which is to be transmitted by her while the other portion is to reach her children through other channels. The inheritance which she seeks to transmit is one and indivisible, although its aspects are many. It is the divinely appointed food supplied by the Heavenly Father and entrusted to her for the little ones of the flock.

To understand her viewpoint, it will be well to look at the five-fold spiritual inheritance under the aspect of so many essential elements of a normal food supply for the conscious life of the Christian man.

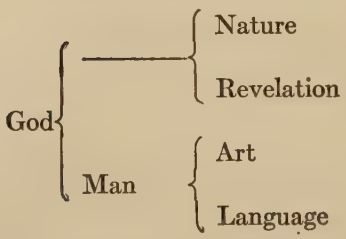
[1] Matt. xxviii, 19-20.

In addition to minute quantities of other elements, the food for man's body consists of four elements: carbon, nitrogen, oxygen and hydrogen. If any one of these four elements be wholly omitted, the diet is insufficient, no matter in what quantities the other three elements may be present. Not only must the four elements be present, but they must be present in due proportion, otherwise the diet is not adequate to the needs of the organism.

In like manner, we may analyze the sources of man's mental food and by so doing reach a more just estimate of that which education has to transmit than by considering it under the aspect of its five-fold spiritual inheritance, which too often suggests external possessions such as lands or moneys.

Mental life, in common with all other forms of life, grows by what it feeds upon. Now the food required for the nourishment and development of man's conscious life is to be found in the following four sources: first, in the truth and beauty and goodness of the Creator as reflected in nature; secondly, in the direct revelation of the truth and beauty and goodness of God that reaches the individual through revealed religion; third, in art regarded as the concrete embodiment of human thought and action; fourth, in the manifestations of the human mind and heart that reach the individual through the arbitrary symbols of speech.

All that man learns through the entire educative process may be found in these four sources. Moreover, it is essential for the nutrition and normal development of human life that no one of these four elements of man's mental food be omitted. The relations of these sources to each other and the unity which underlies them may be illustrated by the following diagram:



God is here represented as the single source of the four mental food elements. He is at once the author of man's being and the ultimate source of all that ministers to his life and to his development. He reveals Himself to man directly through nature and through revelation, and indirectly He also reveals Himself to every child born into the world through man's works and through man's thoughts as expressed in human speech.

Apart from its onomatopoetic elements, human speech has no power to convey thought elements; its function is to convey directions for the manipulation of thought elements previously derived from sentient experience. Hence, whatever may have been the case with primitive man, human speech today is meaningless when it transcends the limit of concrete experience. Language, therefore, of itself and apart from the other sources can no more nourish the mind than nitrogen alone, apart from the other chemical elements, can nourish his body. In like manner, revelation has no meaning apart from nature and from the concrete results of human thought and action. Nature precedes revelation even as the concrete embodiment of human thought precedes human language. But, on the other hand, nature, apart from revelation and from human thought conveyed through language, would have little meaning and little value to any child of man. Without the aid which is supplied through human speech and

through divine revelation, man forever stumbles and fails to comprehend the truth that is embodied in his physical environment, whether directly by nature or by man. The child from whom human speech in all its forms is excluded, no matter how vigorous his brain or how complete and perfect his animal inheritance, could obtain little knowledge of the meaning of natural phenomena or of the meaning of the various monuments which man has left on the face of the earth.

From this point of view, may be seen something of the magnitude of the disaster that has overtaken state education in this country, through the well-meaning, but compromising and secularizing spirit which has banished from our state schools both God and divine revelation. Instead of the normal food in its four-fold unity for the conscious life of man which the Church has supplied to her children for two thousand years, the state offers only scattered fragments which may be represented thus:

Nature.

Man { Art. / Language.

The loss is even greater than this diagram portrays, because man's advancement in the past in all the fields of his endeavor was inspired and guided by the thought of God and by the teachings of revealed religion. It was religion that built the ancient temples. It was religion that guided the chisel of Praxiteles and the brush of Phidias. Without religion as the key, Homer, the Vedas, the Psalms of David and the literature of all the ancient world becomes a series of meaningless sounds. Without religion, the Divina Commedia and Paradise Lost are quite unintelligible to any mind. Verily, it is difficult to banish God

from His world, and the consequences of all attempts to do so are unqualified disaster. Without Him the Ten Commandments cease to have any binding force other than the will of the majority. Without Him, home loses its sanctity, marriage its stability, and woman the high position by man's side accorded her by Christianity. Without Him, the newly born infant forfeits its right to live and the suffering their claim upon human sympathy. Without Him, man ceases to look upon his fellow man as his brother and regards him as his rival and his enemy. Without Him, the ethical everywhere gives place to the biological in the struggle for existence and man takes his place on the same plane as the brute. Without Him justice, and mercy yield to physical force in the conduct of life, and all that is highest and best in the world, all that Jesus Christ brought into the world and willed to transmit to all peoples through his Church, ceases to exist.

It has ever been the purpose of Christian education to give to each child an adequate food supply for his conscious life derived from nature and revelation, from art and human speech. The development of Western civilization has witnessed many changes of estimate in the relative importance of the truths to be derived from these four sources. The Christian in the Catacombs, the hermit in the desert, the mystic in his cell, neglected the other sources of truth in order to devote themselves wholly to the truths of the spiritual Kingdom. Averroes, Avicenna and Abelard are representatives of a movement which attached supreme importance to the speculations of human reason. The Scholastic movement concerned itself with the reconciliation between revelation and reason. Giotto, Michael Angelo and Raphael bear witness to the deep interest of their times in the artistic embodiment of the Chris-

tian ideals of beauty, while the Humanistic movement laid its chief emphasis on literary expression. The last century witnessed an unprecedented development of the physical and natural sciences, while the practical applications of these sciences in our own day touch human life in so many ways that they fill the imagination and absorb the mind of the student.

CHAPTER III

FROM THE STATIC TO THE DYNAMIC

The most significant change manifesting itself in the modern world is, perhaps, the shifting of the center of man's interest in all things from the static to the dynamic. This change is of peculiar importance in the field of education. It calls for the reformulation of the functions of all educational agencies. This is well illustrated in the change which it has brought about in our conception of the functions of the teacher.

To find truth in its four-fold source and to present it to the pupil in a form suited to his capacity has long been regarded as one of the chief functions of the teacher.

This function may be performed in various ways. The teacher may take the rose-bush, clothed with its fragrant blossoms, and analyze it for his pupils; he may point out its root and stem, its branch and leaf and blossom; he may call attention to the number and color of its petals, to its perfume, to the shape and structure of its leaves, to its rind and vascular bundles and flowing sap; he may compare it with others of its kind and indicate the resemblances and differences of structure in the various members of the group. In all this he is teaching things as they are, as if they were something fixed, stationary or static. His method is didactic. He analyzes the whole into its parts as one might dissect a dead body to discover the relationship of parts in the structure that had once served to perform the functions of life.

The rise of the scientific spirit in our day, and more particularly the development of the biological and psycho-

logical sciences, demands a radical change in our methods of teaching. In the face of this demand, didactic methods are yielding to organic methods in the structure of text-books no less than in the work of the teacher. The spirit of this change may be aptly illustrated by a page of a popular lecture delivered more than two decades ago by a protagonist of the newer methods:[1]

"There is a delightful child's story, known by the title of 'Jack and the Bean-Stalk,' with which my contemporaries who are present will be familiar. But so many of our grave and reverend juniors have been brought up on severer intellectual diet, and, perhaps, have become acquainted with fairy-land only through primers of comparative mythology, that it may be needful to give an outline of the tale. It is a legend of a bean-plant, which grows and grows until it reaches the high heavens and there spreads out into a vast canopy of foliage. The hero, being moved to climb the stalk, discovers that the leafy expanse supports a world composed of the same elements as that below, but yet strangely new; and his adventures there, on which I may not dwell, must have completely changed his views of the nature of things; though the story, not having been composed by, or for, philosophers, has nothing to say about views.

"My present enterprise has a certain analogy to that of the daring adventurer. I beg you to accompany me in an attempt to reach a world which, to many, is probably strange, by the help of a bean. It is, as you know, a simple, inert-looking thing. Yet, if planted under proper conditions, of which sufficient warmth is one of the most important, it manifests active powers of a very remarkable

[1] Huxley, Evolution and Ethics, New York, 1894, p. 46 ff.

kind. A small green seedling emerges, rises to the surface of the soil, rapidly increases in size and, at the same time, undergoes a series of metamorphoses which do not excite our wonder as much as those which meet us in legendary history, merely because they are to be seen every day and all day long.

"By insensible steps, the plant builds itself up into a large and various fabric of root, stem, leaves, flowers, and fruit, every one moulded within and without in accordance with an extremely complex, but, at the same time, minutely defined pattern. In each of these complicated structures, as in their smallest constituents, there is an imminent energy which, in harmony with that resident in all the others, incessantly works towards the maintenance of the whole, and the efficient performance of the part which it has to play in the economy of nature. But no sooner has the edifice, reared with such exact elaboration, attained completeness, than it begins to crumble. By degrees, the plant withers and disappears from view, leaving behind more or fewer apparently inert and simple bodies, just like the bean from which it sprang; and, like it, endowed with the potentiality of giving rise to a similar cycle of manifestations.

"Neither the poetic nor the scientific imagination is put to much strain in the search after analogies with this process of going forth and, as it were, returning to the starting point. It may be likened to the ascent and descent of a slung stone, or the course of an arrow along its trajectory. Or we may say that the living energy takes first an upward and then a downward road. Or it may seem preferable to compare the expansion of the germ into the full-grown plant, to the unfolding of a fan, or to the rolling forth and widening of a stream; and thus

to arrive at the conception of 'development' or 'evolution.' Here, as elsewhere, names are 'noise and smoke;' the important point is to have a clear and adequate conception of the fact signified by a name. And, in this case, the fact is the Sisyphaean process, in the course of which, the living and growing plant passes from the relative simplicity and latent potentiality of the seed to the full epiphany of a highly differentiated type, thence to fall back to simplicity and potentiality.

"The value of a strong intellectual grasp of the nature of this process lies in the circumstance that what is true of the bean is true of living things in general. From very low forms up to the highest—in the animal no less than in the vegetable kingdom—the process of life presents the same appearence of cyclical evolution. Nay, we have but to cast our eyes over the rest of the world and cyclical change presents itself on all sides. It meets us in the water that flows to the sea and returns to the springs; in the heavenly bodies that wax and wane, go and return to their places; in the inexorable sequence of the ages of man's life; in that successive rise, apogee, and fall of dynasties and of states which is the most prominent topic of civil history."

In this lesson the student's interest is not focused upon the static elements of the framework of life, but in a definite and orderly sequence of changes and in the causal force that lies back of them. The facts concerning the bean are transformed by the mind in this process into a means of understanding many things in heaven and upon earth. By this lesson, the teacher aims to implant in the mind a germinal thought which will unfold, in due time, into a world of useful knowledge. The story of the bean is but a parable which is used to lead the pupil

into an understanding of the cosmic process, and both of these are but preliminaries, in this particular instance, to an understanding of human life which the teacher proceeds to develop in the remaining part of his lecture. The interest throughout is in the dynamic rather than in the static.

The attitude of man's mind towards the problems of nature has undergone many important changes in modern times, one of the most remarkable of which is the shifting of the center of his interest from the static to the dynamic. Formerly, man studied all objects in nature as if they had come to him unchanged from the hand of the Creator; today the processes through which these objects have come to be what they are, hold the chief interest of all students of nature.

Towards the close of the eighteenth century, this change of attitude was foreshadowed in the Kant-Laplace theory of cosmic evolution and in the philosophical speculations of Goethe, Hegel and Schelling. In the beginning of the nineteenth century it took on a more concrete form in the Lamarck theory of organic evolution. A little later, Joule and the physicists, by the discovery of the mechanical equivalent of heat, led the way to the larger discoveries of the transformation of force and the conservation of energy. Still, up to the middle of the last century, this change of mental attitude was confined within very narrow limits. Newman's "Development of Doctrine," Darwin's "Origin of Species," and the work of such men as Spencer, Huxley, and Wallace, ushered in the modern attitude.

The chemist of today refuses to be content with the knowledge of the elements which enter into a chemical reaction and with a knowledge of the products which

issue from it. He has learned that the pathway of progress lies through the processes involved in the chemical transformation. The geologist refuses to be content with a description of the successive layers which he finds in the earth's crust; these interest him only in so far as they unfold to him the history of the changes through which the earth has passed. The naturalist has ceased to be absorbed in the classification of fauna and flora, and has turned his attention to the laws of heredity and to the forces which have produced the diversified forms of life.

Not only has the process of becoming a transcendent interest in itself, but, in every department of natural truth, men have ceased to believe that they can understand things as they are until they have first traced the processes and transformations through which things have come to be what they are.

Nor is the change of attitude confined to the shifting of interest in the domain of nature. The attitude of man's mind towards the products of human thought and human endeavor has recently undergone a similar deep-seated change which has given to history a position of predominant importance. On every side men are eagerly pursuing the history of all things—of language and literature, of religion and philosophy, of science and art—and yet it is not the past of any of these subjects that holds their interest. Their interest in the past springs from their recognition of the fact that a knowledge of the past is indispensable to an understanding of the process of becoming in which they seek the key of the present and the indications of the future.

Formerly, languages were studied in their developed condition. From an examination of the usage of the best authors, rules of grammar were formulated and exceptions

catalogued. The philologist of today seeks in the history of language the laws which govern its development. He studies the effect of accent and usage, of analogy and phonetic decay; and, as a result, exceptions disappear, the present condition of the language is rendered intelligible, and the lines of its future development are foreseen.

In like manner, the student of literature concerns himself with the movements of thought and with the environmental influences which find expression in the works of the masters. The theologian and the philosopher seek the fuller meaning of doctrines in the history of their development. The student of political and institutional history has turned his attention from reigning monarchs and dynasties, from dates of battles and shifting political boundaries, to the social and economic forces which have caused the rise and fall of kingdoms and of empires, and which govern the development of our social institutions. In the domain of the products of human thought, as in the realm of nature, the student's center of interest has shifted from the static to the dynamic.

Nor does this remarkable change end here, for man's interest in the pursuit of truth is inevitably reflected in his activity. The everlasting hills spoke to him of an unchanging world and he sought to perpetuate his memory in imperishable monuments. The Pharaoh housed his embalmed dead in the enduring pyramid; the Roman conqueror brought home his captives and the spoils of war to build upon the seven hills an eternal city; Michael Angelo sought in the quarries of Carrara a medium that would perpetuate in unchanged form the visions of beauty which filled his soul; the builders of the Gothic cathedrals turned their primeval forests into changeless

stone, while the poet's dreams are perpetuated in the immortal verse of the Iliad and the Aeneid, the Divina Commedia and the Paradise Lost.

The voices of Confucius and Buddha held the civilizations of the East unchanged throughout the slowly lapsing centuries. The laws given amid the thunders of Sinai were graven on tables of stone; and the Scribe and the Pharisee were so imbued with the changeless character of their laws and traditions that they killed the Messiah, Who came to liberate them from "the letter of the law, that killeth" and to impart to them "the spirit that giveth life."

Those who followed in the Master's footsteps and understood His methods were incorporated into the Kingdom, which grew and developed like the mustard seed and which holds the secret of undying life in its power of adjustment to a changing environment. The history of Christian civilization is a record of the transforming power which went out from the Kingdom to regenerate a pagan world and to civilize the untutored savage; but it was not until modern times that the spirit of this change from the static to the dynamic found expression in man's secular pursuits.

The page which we have quoted from Huxley is illustrative of the spirit of modern science and of its effect upon modern methods of teaching. But this same method, in a still higher degree of perfection, was employed two thousand years ago by the Master, and the most consistent illustration of it is still to be found in the pages of the Gospel: "All these things Jesus spoke in parables to the multitudes: and without parables He did not speak to them."[1]

[1] Matt. xiii, 34.

Man has, in fact, been very slow in coming to a full realization of the meaning of this change in the object of his pursuits. The discoveries of gunpowder, steam and electricity brought with them no immediate intelligence of the changes that were to follow. Gradually man has learned how to make the forces of nature obedient to his will. The thousand slaves propelling a Roman trireme failed to secure more than a small fraction of the speed attained by a modern ocean liner driven by forces which had lain hidden for ages in the bowels of the earth.

Man has at last learned to shift the burden from his own shoulders; he has found in the forces of nature agencies through which he is enabled to accomplish results undreamed of in the past. He has removed the last battlements of the feudal system and has battered down the Great Wall of China; he has converted the oceans into lakes and transformed the inaccessible wildernesses into busy marts of trade; he has dissolved the rigid framework of static populations and has mingled the peoples of the earth; he has swept industry from the home and organized it in the factory; he has removed from individual life the compelling force of local custom and family tradition and has caused conduct to flow from the wellspring of individual character; he has found in the very changes against which he has battled from the beginning of time the secret of a larger and a fuller life.

The Western world, throbbing with the lusty vigor of this full-veined life, has at last touched the Orient and awakened it from its sleep of ages. It is not surprising, therefore, that in every field of human activity the center of interest has shifted from the static to the dynamic. And, as was to be expected, this change of interest in the adult world soon found expression in the world of the child's life.

The prevailing currents of thought in the adult world find their way into the schools through various channels. The progress of science in our day is due, in no small measure, to the research work carried on by university professors and by students under their direction. Pupils in the university, thus formed in the spirit and methods of scientific investigation, recruit the faculties of colleges and normal schools, where the teachers of elementary schools and high schools receive their training. It is through this channel that the main current of progress ultimately reaches and modifies the work of all schools. But the change in the outer world can reach the school in more direct ways than this. The teacher and the pupil are influenced in many ways by daily contact with the men and women who are actively engaged in the struggle for existence.

Moreover, rightly or wrongly, the success of a school is often measured by the success of its alumni in the struggle for existence. In this circumstance is to be found a force which compels the school to adjust its methods to the needs and conditions of the outer world, and no school can long continue to exist unless it performs its functions efficiently and sends from its doors men and women who are fully equipped for the battle of life.

The success of a school in the past is not a guarantee of its success in the present or in the future. Conformity to a fixed type was the condition of success in the past; the production of plastic individuals is the requirement of the present. Formerly, the test of a school's worth was to be found in the rigid adjustment of its pupils to static social and economic conditions; the test today is the pupil's power of adjustment to a rapidly changing social and economic environment. Docility was the measure of success when local customs and family tradi-

tions were the accepted standard of conduct; today moral ruin is the inevitable fate of all who lack the strength of character to battle alone with the storms of temptation and passion. The accumulation of a definite stock of information may have sufficed for the conditions of a static world, but success today is measured by the power of finding truth in its sources, and of adapting it to the problems of life as they arise. Formerly, the home was the seat of various industries which provided the pupil with the objective training which must be supplied by the school of today.

Moreover, the horizon of natural truth has been so widened through the recent development of various sciences that the teacher's power of equipping his pupils with the knowledge demanded by the conditions of modern life is measured by his ability to understand and to control the forces in the mind and heart of the pupil.

In the school, as in the outer world, the pathway to the knowledge of things as they are lies through the processes by which things have come to be what they are. Where the processes of human thought have found concrete embodiment, the development of thought and the development of its external embodiment follow the same lines. The development of man's thought concerning locomotives, for example, is reflected in the successive modifications through which the locomotive has passed. By beginning with the first locomotive and studying each subsequent modification of the machine, we may follow, step by step, the development of the thought and the development of its external expression. But when the objects of study are processes in nature that are not subject to human control, the case is otherwise.

The process of cosmic evolution and the development of

human thought concerning it follow lines which run in opposite directions. Man's knowledge here begins with nature's finished product, and, step by step, he fights his slow way back towards more primitive conditions and underlying causes.

By this latter procedure the frontiers of human knowledge are advanced. We are here dealing with the adult student—with the investigator. To train men in this procedure is the specific work of the modern university.

In elementary and intermediate education the aim is to bring the pupil in a few years over ground which it has taken the race centuries to cover, and our procedure must be modified accordingly. The student begins with the latest secure developments of science, with simple conditions and underlying causes, and reconstructs, mentally, nature's developmental phases. In nature, as in the work of man's hand, the objective sequence should determine the order of imparting knowledge, but the converse of this is true of the methods of the investigator. He must find, in the history of science, light and guidance for its further development.

The process of education in the mind of the pupil presents a series of developmental phases which is primarily the result of natural forces resident partly in the brain and consciousness of the pupil and partly in his physical environment; but this series of phases may be modified, and to a limited extent it may be controlled by the teacher. The process of cosmic evolution and the process of mental development differ from each other in this important respect that the former is in no way modified by the development of human thought concerning it, while the development of the child's mind and character may be modified in many ways by the views on

education which are held by parents and teachers, and by the methods which they employ. The teacher's attitude is, therefore, a factor in the mental development of the pupil; and a knowledge of this attitude, which can be gained only through the history of education, is rendered necessary to a full understanding of the process of development that takes place in the mind of the pupil.

The present concept and method of education are a growth and outcome of the past, and we shall understand them fully only by learning what has been their history and by studying the influences that have been playing on the minds of the teachers, compelling them to change their methods. In the days when the static absorbed man's entire interest, the problem of education concerned itself with the means by which a maximum amount of information might be imparted by the teacher and absorbed by the pupil; today, the processes of growth and development in the mind and heart of the pupil have become the problems of all-absorbing interest to educators. For, indeed, in the school, as in the adult world, the center of interest has shifted from the static to the dynamic.

CHAPTER IV

EDUCATION AS ADJUSTMENT

The higher animal is born into the world possessing instincts which determine for the most part the adjustment of his conduct to his environment. He learns but little from his parents or from the other members of his species. The converse of this is true of man. With the exception of the early days of infancy, during which his conduct is wholly controlled by native instincts, his progressive adjustment to environment is largely the result of education.

Owing to the incompleteness of his physical inheritance in reflexes and instincts, the infant remains for a time peculiarly helpless, but through his own experience and through the experience of others he soon begins to modify his instincts and to build up new modes of reaction to his environments. This process of modifying instinct and building upon it new adjustments to environment is education in the widest sense of that term. The term "education," however, is frequently restricted in its meaning to the process of adjusting the child to its environment in so far as it is deliberately controlled by organized educative agencies, such as the school, the church and the home; and, indeed, the term is often used in a still more restricted sense to designate the educative process that takes place in the school, which is the social agency organized for the express purpose of adjusting each new generation to the environments, institutions and manner of living established by preceding generations. It is usual and convenient to designate the educative process, in so far as it is deliberately controlled by the school, as

formal education, and to refer to the process, in so far as it is controlled by all other educative agencies, as informal education.

The complete system of fully developed instincts which the higher animal inherits from his ancestors fixes his adjustments to his environment and renders them so rigid that but little change or modification is possible either through the experience of the individual or through the conscious efforts of man. Animals in domestication and wild animals may, indeed, be trained to new modes of activity within certain narrow limits, but such training is in its nature very different from that resulting from conscious intelligent action such as is usually involved in the educative process, and the modifications seldom, if ever, perpetuate themselves from generation to generation except through human agency. The real modification of the animal's adjustments to his environment is, therefore, rather a race process than an individual process. It is phylogenetic, not ontogenetic, while the training they take on from human agencies is ontogenetic, not phylogenetic. Various species of higher animals, when compared with one another in the quality of their adjustments to environment, may be said to be more or less plastic, but, as compared with man, even the most plastic of them are extremely rigid.

The limited range of human instincts and the inchoate condition in which they appear render the human infant plastic. This plasticity facilitates modification of existing adjustments and renders new adjustments both possible and necessary. The quality of plasticity, while possessed by all human infants to a degree out of all proportion to that in which it is possessed by any of the higher animals, is not possessed in equal measure by the

various races of mankind nor even by different individuals of the same race or family. Moreover, the quality of plasticity varies greatly at different epochs of individual life, and it is capable of being increased or diminished through educative agencies.

The value of plasticity to the individual and to the race is not fixed or unvarying; it is a potentiality rather than an actuality; its value lies wholly in the fact that it renders new and better adjustments possible. But it should not be forgotten that the acquiring of a new adjustment is a slow and difficult process. When the superiority of the new adjustment is not sufficient to compensate for the delay and the expenditure of energy involved in its acquirement, plasticity has only a negative value. Were the environments to which human life must be adjusted unchangeable, the rigid instinctive adjustments to be found in animal life would be far superior to the plasticity which characterizes the human infant. On the other hand, when the environment is unstable and particularly when the changes in the environment are rapid and deep-seated, rigid adjustments no longer serve the purposes of life, and extinction of the rigid species is the unavoidable result. Under such conditions plasticity becomes the salvation of the race. The value of plasticity, therefore, depends upon the extent and the rapidity of the changes which take place in the environment. The more rapid and extensive these changes are the more valuable does the quality of plasticity become.

Probably there has been no period in the history of the human race in which the changes in man's environment have been so rapid or so deep-seated as in our own day, and hence there never was a time when the quality of

plasticity possessed so great a value as it does today. So necessary, in fact, has this quality become that every element in the educative process must be evalued in the first instance by its effect upon this quality. This truth is constantly reiterated in current educational literature. It is thus stated in an epitome of President Hall's educational writings.[1]

"There are three ideals which have prevailed, or do now prevail, in educational philosophy. According to the first, education is at its highest an inculcation of the best traditions of the past. It reveres Greece and Rome, and the purpose of education, according to this ideal, is to bring the child into contact with this ancient life, and enable him to absorb its lessons in such a way as to refine his nature, to set him apart from the common herd as a cultured man. This ideal has been most consistently represented by that most conservative of all educational institutions, the denominational college.

"The second ideal is represented by the tendency of society to make its schools in its own image, and to measure their efficiency by their success in fitting the child for the domestic, political and industrial life of the present time. This ideal of fitting for present life, for service in existing institutions, though immeasurably better than that of fitting in accordance with a by-gone past, also brings with it a danger of narrowness and provincialism. It tends to select only such knowledge as the adult mind finds useful for its own purposes, and to neglect the knowledge most suited to the child. It leads to utilitarianism, and is illiberal. Those who thus conceive education place the school organization first, and subordinate the indi-

[1] Partridge, Genetic Philosophy of Education, New York, 1912, pp. 101 ff.

vidual to it. Citizenship looms large in comparison with womanhood and manhood. Its greatest fault is that, with a definite ideal of efficiency in life work constantly held before the youth, it fits too narrowly for practical tasks. It leads to too early and too narrow specialization of interests, to an over-individualized and selfish life, in which the larger conceptions of manhood are lost.

"But there is a third ideal which teaches that the school shall not be made in the image of the past nor of the present, but shall fit man for the next stage of his development. In the present stage of rapid transition and expansion of our race this ideal of the future must be more dominant than ever before, or we shall deteriorate as a nation and fall behind in the race. Our children must be trained not merely to maintain present civilization, but to advance upon it. We must never forget that the present is not a finality. And, knowing the spirit of the age, we must quite as often oppose it as serve it. Education must always see that no good of the past be lost, but on the other hand it must infuse into youth a deep discontent with things as they are, and it must give ideals leading to the next step in human evolution. That is, education must always fit youth to live in the future, not in the present nor in the past."

The realization of each of these three ideals demands the quality of plasticity in the pupil, but the third aim alone makes the development of the quality of plasticity its direct and immediate object. Whatever may have been advisable in the past under social and economic conditions which were more or less stable, it is evidently no longer wise to rest contented with native plasticity. We must, by every legitimate means in our power, seek to develop this quality of plasticity to the highest possible

degree, to the end that pupils leaving our schools may be able to deal effectively with the new and rapidly changing social and economic conditions under which they must live.

Plasticity, as we have thus far considered it, is a passive quality. It is the capacity of the individual to take on modifications to his existing modes of activity and to establish entirely new modes of activity to meet new and changed conditions. But adjustment as the end and aim of education means very much more than this. It means the power to change and dominate environment quite as much as the power to dominate and change the individual. Indeed, plasticity as a vital power should include this positive faculty, this ability to change environment in many ways so as to make it meet the needs of self. Adjustment means changes both in the individual and in his environment, and education, to be efficient under present conditions, must develop in each individual this two-fold power.

Adjustment implies a process of fitting things to each other so that they may work harmoniously towards the attainment of their ends, thus preventing the thwarting of their several aims through mutual opposition. Static, unchangeable bodies can never adjust themselves to each other or to anything else. Now, when we speak of an individual adjusting himself to his environments, our language suggests that the environments are fixed and unchangeable and that the individual must conform his actions to these changeless things as if the world could not be altered and he must do all the altering on his own part. If this implication were true, "man would be compelled to eat the food that nature in her wild state produced for him. He would have to find shelter in the

caves and dens which he found ready to hand, or seek a temperature where the winds and weather would be tempered to him in his nakedness."[1]

The facts in the case show the contrary of these suppositions to be true. Civilized man, at least, is satisfied with nothing as he finds it. In whatever environment he is placed he at once sets to work to modify it so that it may more adequately meet his needs. In fact, he never permits nature in her relationship to him to work out her own unmodified designs, for his highest good is not secured through her unaided efforts; his aesthetic need is not satisfied by nature's product. He is forever reconstructing and remaking his environments, whether physical, aesthetical, social or intellectual. None of these things are "static in his hands or unmodifiable or permanent in their original forms. His spiritual and physical needs, not the environments, are the really permanent things in the adjusting process. Adjustment, then, does not mean that the individual fits himself into the world, so much as that he makes the world fit him."[2]

However much we may emphasize one or the other of these factors in the process of adjusting man to his environment, the fact remains that it is the business of education to help the child so to modify himself and so to modify his environment that the one may be properly adjusted to the other. It is the business of education so to strengthen the will, so to clarify the intelligence, and so to preserve the plasticity of the individual, that he may conquer his environment and permanently conquer himself.

The only surprising thing about this educational doc-

[1] Cf. O'Shea, Education as Adjustment, New York, 1905, p. 99 ff.
[2] Loc. cit.

trine is that so many educators of our time seem to regard it as a new thought, whereas it is the very central thought of Christianity. Never in the history of the human race has there been a better illustration of this two-fold conquest than was given to us by Jesus Christ and by His followers. Who so well as they knew how to conquer self and the world in which they lived and bend it to their purposes? The Church taught the wild nomadic tribes the arts of peace by which they subdued the primeval forest and built up the institutions of Christian civilization. She taught the degenerate pagan to conquer his passions and to use the rich cultural treasures which he inherited from Greece and Rome in the work of reconstructing society. She led man, in his conquest of physical nature, in his conquest of the seas and in his discovery of unknown worlds. She furnished him with the ideals and with the inspiration which found expression in the fine arts, in sculpture, in painting, in architecture and music, in poetry and *belles lettres*. Nor did she content herself with guiding man in his conquest of an external world. She taught him the art of so modifying and refining his own nature that the result was a St. Benedict, a St. Francis, a Bayard.

It is true, evangelical Christianity seems to have forgotten the Church's steady progress in the conquest of the world and in the conquest of human nature, and would lead its votaries back to the unchanged and undeveloped conditions of Gospel days. The Catholic Church, however, whether threatened from without or shaken by storms and convulsions from within, never forgot the Master's command to go forward into the newness of life. She never forgot her divine mission to grow and develop as the mustard seed, meeting each new

condition with new adjustments, both by modifying the modes of her own reactions and by modifying man in his social and economic life.

The denominational college may, as President Hall says, seek to confine the present within the limits of the past, but in so doing it is neither true to the example of the Church nor to the command of Jesus Christ Who bade His followers "Follow Me and let the dead bury their dead." Jesus frequently warned His followers against rigidity and against the danger that lurked in obedience to the unchanging forms of their local customs. The Jews of His day could not understand His demand for change and modification in what seemed to them to be fixed and rigid because of its divine origin, nor could they understand the message to His apostles "I have yet many things to say to you: but you cannot bear them now. But when He, the Spirit of truth, is come, He will teach you all truth . . . and the things that are to come, He shall show you."[1] But the apostles and their successors inherited the Master's spirit and made His command their rule of life.

St. Paul, writing to the Corinthians, reminds them that "the letter killeth, but the Spirit quickeneth." And the Church today, as in all her history, stands forth the best existing embodiment of plasticity. She manifests, as no other society ever manifested, the power of adjustment to changing environments. Hers is not, and never has been, a weak yielding to environmental forces. She still retains the divine secret of adjusting herself to environment and of adjusting her environment to self so that she may continue to live in all climes, under all forms of government, and to minister to all mankind. She is not passive, nor rigid, nor

[1] John xvi, 13.

local, and the educator who would understand the inmost meaning of the quality of plasticity as the crowning glory of life cannot do better than to study it as it exists in the Church. There he will learn the meaning of adjustment as a conquest of self and a conquest of environment such as will lead to the fulness of life both here and hereafter.

When Herbert Spencer defined life as the continued adjustment of internal to external relations, he put into new phrase a thought expressed by Aristotle more than two thousand years ago. Whether or not this be regarded as an adequate definition of life, it certainly expresses one of life's most characteristic features. It is only another way of saying that if any species of living beings is to continue to exist, its members must escape the destructive forces in their environment and they must find food upon which to exist, to grow and to reproduce themselves. Now these primary vital functions can continue to be performed only on condition that the creatures obey the laws that govern the world in which they live, a thought which might be expressed equally well by saying that the continued existence of a species demands the adequate adjustment of its members to the environment in which they live.

The history of life upon the earth shows us that whenever the environment has remained unchanged for a long period of time the forms of life that dwell in it gradually become adjusted to it. Variations in the direction of more advantageous adjustment are preserved while all other variations are eliminated, until, in the course of time, a practically perfect adjustment is reached. This adjusted form is then transmitted to each subsequent generation. Sameness of type in structure and function is thus secured and the species is rendered rigid. Thus the environment of the globigerina in the deep sea is

practically the same today as it was in the ancient chalk seas, and the structure and habits of the globigerina have remained practically unchanged throughout all this period of geological time.[1]

Whenever serious environmental changes occur, all species of beings that are unable to change in structure or in function or in both, so as to meet the demands of the changed environment, must cease to exist. The geological record reveals the fact that nature has pronounced the death sentence upon innumerable forms of life which have failed to adjust themselves to a changing environment. Rigid species are produced in a long continued changeless environment, and they can exist nowhere else. When such an environment finally undergoes any marked change, the rigid species which had inhabited it become extinct. On the other hand, a slowly changing environment, by continually modifying its standard of selection, tends to produce plastic forms. The plasticity thus revealed, however, is a characteristic of the race rather than of the individual, and the adjustment is consequently a slow process, and when the environment changes rapidly, the tendency to extinction in all the forms which inhabit it is pronounced. This statement holds true whether we accept the theory of natural selection, the theory of Mendel, or any other theory which may find favor in the biological world. The emphasis will change according as our theories change, but the fundamental fact remains unaltered that rigid species inhabit unchanging environments and plastic species dwell in changing environments.

It should be further noted that the relation between plasticity and the character of the environment applies

[1] Cf. Huxley, Dis. Biol. Geol., New York, N. Y., 1894, 1 ff.

not only to the structure of animals but to their mode of action. The conduct of the individual animal is governed almost wholly by a body of organized instincts and reflexes which it has inherited from its ancestors. This circumstance renders education both unnecessary and impossible to the mere animal. It is true that the conduct of many of the higher animals is susceptible of modification within very narrow limits through experience and through imitation, but except in cases of training under domestication such changes are comparatively insignificant.

"The continued adjustment of internal to external relations" does not express the sum total of the adjustments which exist between living beings and their environment. Life in all its forms acts upon its environment and is modified by it. Vegetation modifies the climate; where it is abundant, it increases the precipitation and prevents rapid evaporation; and a prolific animal species reduces the quantity of food in the environment and frequently alters the conditions of its attainment. The beaver builds its dam to facilitate the capture of food; the muskrat builds its house to secure a modified climate in which to live; but it should be observed that the intelligence governing these various modifications of environment is not the intelligence of the individual but the intelligence of the Creator, which thus finds expression in the organized instincts of the species to which the animals in question belong.

It is true, however, that the lower forms of life possess very little power of modifying their environment, and in consequence the adjustment of the living being to its environment in all the forms of life below man is chiefly a process of change in the living being. But in man these conditions are reversed; adjustment in his case is largely

concerned with modifying environmental conditions, and a large and important part of the work of education consists precisely in equipping each individual with such a knowledge of nature and her laws as will enable him to conquer her and to subjugate her forces to his will. It should be further observed that while plasticity in the forms of life below man is chiefly a race characteristic, in man it is chiefly a quality of the individual. In spite of the long history of civilization, each individual human being still comes into the world with an extremely limited power of conquering his environment, and were it not for the social inheritance which he as an individual acquires through educational agencies he would be more helpless in the all-important work of adjusting himself to his environment than many of the higher animals.

In spite of the importance to man of learning how to modify his environment, it would be a grave error to assume that the business of education consists wholly in this. "Is not the life more than the meat and the body more than the raiment?" It is much to be able to conquer environment, but it is a much greater privilege to be able to conquer oneself. The growth of intelligence, the strength of muscle and the persistence of will power required to conquer environment have a value in themselves which is much higher than the value which they possess as means of modifying an outer world. Nor does education concern itself alone with the development of these powers. It must aim at bringing about a multitude of subtle internal changes in feeling and emotion, in volition and insight, which are not immediately related to an outer world. The business of education is indeed to equip man for an outer conquest, but it has a still higher mission to transform the inner man and bring him into conformity with

the ideal of perfect manhood revealed to us by Jesus Christ. Christian education, at least, should be conscious of its redeeming mission. It must never forget that its chief business is to transform a child of the flesh into a child of God.

Individual plasticity and its correlative, education, are characteristic of man. To these qualities he is indebted in large measure for his superior power of adjusting himself to a rapidly changing environment and for his power of adjusting his environment to his own needs.

As in the case of the young of other animals, the human infant inherits a body of organized reflexes which govern his vegetative functions, but the more complex reflexes and instincts by means of which the young animal secures adjustment to his environment are in the case of the human infant largely atrophied. A set of suitable adjustments of the individual to his environment must be built up in each single member of the human family. The building up and perfecting of the adjustments as well as the imparting to muscle, to will and to intelligence the power to modify environments in suitable ways is included in the work of education.

Plasticity as the mere absence of adjustment is in itself not an advantage to the individual or to the race. The individual is, in fact, rendered helpless in the absence of adjustments. It is the absence of such adjustments that renders the human infant unable to walk at birth, and for a considerable time thereafter to procure his own food, or to preserve his own life. The advantage of plasticity lies in the fact that it renders it possible, through education, to build up in the individual a set of habits or of acquired adjustments to present environmental conditions instead of instincts, which merely perpetuate inherited

adjustments to the environmental conditions of the past. Now, if education did nothing more than to reinstate in each individual the adjustments of his ancestors, plasticity would be a serious handicap and instinct would be superior to education, both because of its greater economy and because of the greater perfection in which it transmits the ancestral adjustments.

From considerations such as those here set forth it follows that if the ideal of the denominational college is, as President Hall asserts, "to bring the child into contact with this ancient life and enable him to absorb its lessons in such a way as to refine his nature, to set him apart from the common herd"—if it is to do this and only this, then the denominational college is neither true to the Christian ideal of education nor can it meet the demands of modern times.

Chinese education does, in fact, furnish an excellent illustration of the failure to comprehend the meaning and advantages of individual plasticity, and it furnishes at the same time abundant evidence of the arrested development that must always result from the failure of education to take advantage of the opportunities which individual plasticity offers to bring about those new and appropriate adjustments which are called for by new situations and changed environments.

The Chinese concept of education is revealed in the initial sentence of one of the Confucian texts. The purpose of Chinese education is to train each individual in the path of duty wherein is most minutely prescribed every detail of life's occupations and relationships, and these have not changed for centuries;

"1. The sovereign and king orders the chief minister to send down his (lessons of) virtue to the millions of the people.

"2. Sons, in serving their parents, on the first crowing of the cock, should all wash their hands, and rinse their mouths, comb their hair, draw over it the covering of silk, fix this with the hairpin, bind the hair at the roots with the fillet, brush the dust from that which is left free, and then put on their caps, leaving the ends of the strings hanging down. They should then put on their squarely made black jackets, kneecovers, and girdles, fixing in the last their tablets. From the left and right of the girdle they should hang their articles for use: on the left side, the duster and handkerchief, the knife and whetstone, the small spike and the metal speculum for getting fire from the sun; on the right, the archer's thimble for the thumb and armlet, the tube for writing instruments, the knife-case, the larger spike, and the borer for getting fire from wood. They should put on their leggings and adjust their shoestrings.

"3. (Sons') wives should serve their parents-in-law as they served their own. At the first crowing of the cock, they should wash their hands, and rinse their mouths, comb their hair, draw over it the covering of silk, fix this with the hairpin, and tie the hair at the roots with the fillet. They should then put on the jacket, and over it the sash. On the left side they should hang the duster and handkerchief, the knife and whetstone, the small spike, and the metal speculum to get fire with; and on the right, the needlecase, thread, and floss, all bestowed in the satchel, the great spike, and the borer to get fire with from wood. They will also fasten on their necklaces, and adjust their shoestrings."[1]

All the advantages which human nature offers through individual plasticity are here set aside because of undue reverence for the past. Chinese education has preserved

[1] Muller, Sacred Books of the East, v. 37, p. 449.

for nearly three thousand years a petrified civilization. It would have been an advantage to the Chinese had their conduct in all the details of their life been regulated by instinct as it is in the case of the bear or of the wild pigeon.

Education among the Chinese, during all of the long period which has elapsed since Confucius, has attempted nothing higher than that which is accomplished in the higher animal by instinct, viz., the transmission to the offspring of each generation of the ancestral modes of activity in unchanged form, and it is very seldom indeed that ancestral forms of conduct can be as faithfully transmitted through education, which is necessarily largely external in its operations, as through instinct, which is bound up with the physical organization of each individual.

In so far as any educational institution, be it a denominational college or state school, approximates the Chinese ideal, in that same measure does it sacrifice the advantage of individual plasticity, which is, in so many respects, the greatest gift which nature has bestowed on man.

It is the business of education to seek to conserve all that is good in the past, but it lies no less within its scope to meet the new conditions and the new environments with new adjustments. "Therefore every scribe instructed in the Kingdom of Heaven, is like a man that is a householder, who bringeth forth out of his treasure new things and old."[1]

There are sins against plasticity deeper than those committed by the Chinese. There are educators in our midst today who, speaking in the name of science without scientific justification, would turn our children back to the ideals of the Pleistocene man for the models on which to

[1] Matt. xiii, 52.

form their growing minds; and even were these educators to hasten the child forward over the long stretches of time that have supervened, it may be questioned whether their speed in this march would enable them to reach even the Confucian ideal before the end of the plastic period of childhood had been reached.

While it is true that individual plasticity facilitates development and renders it possible for the race to make more progress in one generation than it could have accomplished during long ages through heredity and race plasticity, while it is true that individual plasticity renders education both possible and necessary, nevertheless it must not be forgotten that education as it proceeds necessarily limits individual plasticity by building up habits similar in nature and function to instincts, constituting, as they do, more or less permanent adjustments of the individual to his environment. With the progressive formation of habits which are absolutely indispensable to effective living, there must always be a corresponding diminution of individual plasticity.

In spite of the many resemblances which exist between habits and instincts as fixed modes of activity, they differ in at least three important respects: (1) habits should be adjustments to present conditions, whereas instincts perpetuate adjustments to past conditions which no longer exist. (2) Habits are acquired in the life of each individual through individual effort, whereas instincts come up out of the past and are inherited ready made. (3) Habits are not deeply rooted and they are consequently subject to facile modification, whereas instincts lie close to the heart of life and strongly resist alterations of any sort. They do, in fact, chain the present to the remote past.

The plastic period of the individual is a period of mental development and it is confined to the morning of life. It is the seed time which determines, in a measure, the fruitage of adult life. The longer the period of plasticity, the more the individual may profit by education, and where education is absent, as among savage peoples, the period of plasticity is shortened. As civilization has developed and become more complex, as its products have become more numerous and more varied, so has the period of individual plasticity been extended until now, in the case of the more favored individuals, at least, the period of individual plasticity has been extended over some thirty years of individual life. Plasticity is greatest during childhood and it gradually disappears as adolescence ripens into maturity. The length of the plastic period varies not only between the savage and the civilized man, but even between individuals living in the same civilized community. The plastic period is comparatively short in those individuals who are denied educational advantages and who at an early age are left to their own devices. Such individuals exhibit a shortened plastic period while they also fail to reach the higher plane of civilized life. From this it may be seen that education not only presupposes plasticity, but that it tends to increase it and to prolong it, and it may be further concluded from the evidence at hand that the effect of education, as measured by the increase and prolongation of plasticity, depends upon the ideals embodied in the educational method in question.

CHAPTER V

THE CULTURE EPOCH THEORY

It was, perhaps, inevitable that the rapid growth of the biological sciences during the latter half of the nineteenth century should in many ways affect educational theory and educational practice. Nor should it be considered a matter of surprise that biological terminology and biological hypotheses and theories, when transferred to other fields, would occasionally lead to extravagances and even to dangerous errors. The natural desire for uniformity makes it easy in such transfers to overlook fundamental considerations of the utmost importance, and it is not often that the workers in one field have a sufficient knowledge of the other to verify the theory in its original field and to be able, at the same time, to judge of its suitableness in the other. To these two causes of error may be added a third of scarcely less magnitude, viz., the tendency to transfer authorities from one field to another. The shadow of a great name frequently awes and prevents the free exercise of intelligence among those, at least, who possess a meager supply of confidence in their own judgment.

It would, indeed, be difficult to overstate the benefits which education has derived in recent years from the biological sciences both directly and indirectly through modern psychology, and it would seem that education has very much still to receive from the same source. All this, however, should not blind us to the fact that the transfer of thought and theory from biology to education, when made by the incompetent or the incautious, is fraught with grave danger. A notable illustration of this may be

found in the culture epoch theory and its pernicious effects upon educational practice in this country.

The rapid development of the science of embryology a generation ago was due, in large measure, to the acceptance of the doctrine of recapitulation. The changes taking place in the developing mammalian embryo, had seemed to be confused and kaleidoscopic until a suggestion was made that the individual, within the brief period of embryonic life, recapitulates the ancestral forms in the sequence in which these forms actually appeared in the history of the race or phylum. This doctrine is summed up in the single phrase *Ontogeny is a recapitulation of phylogeny.* In the light of this hypothesis, the multitude of embryonic changes which had previously seemed confusing and bewildering fell into their places and took on a definite meaning.

The doctrine of recapitulation did not spring into existence full fledged; it took the usual time to win its way to general acceptance. Probably the first suggestion of the doctrine is contained in the following statement made by Mr. Sedgwick in the British and Foreign Medical Chirurgical Review for July, 1863: "Atavism in disease appears to be but an instance of memory in reproduction, as imitation is expressed in direct descent; and in the same way that memory never, as it were, dies out, but in some state always exists, so the previous existence of some peculiarity in organization may likewise be regarded as never absolutely lost in succeeding generations, except by extinction of race."[1]

Owing to the bearing which the doctrine of recapitulation has on the theory of evolution, it soon challenged the

[1] Quoted in Cope, Primary Factors of Organic Evolution, Chicago, 1896, p. 492.

attention of workers in all the departments of biological science. In fact, in a short time, it came to be looked upon as one of the main lines of evidence for the theory of evolution itself. The embryonic changes through which the fertilized ovum is gradually transformed into the complex structure of the fully developed organism are just such as would be obtained from arranging a definite series of living beings from the lowest to the highest in the order of their increasing complexity. It is a brief summary of the forms of life which have appeared upon the earth presented in the same sequence and it harmonizes with the data brought to light in the study of the geographical distribution of animal and plant forms.

All that we know concerning the unity of nature and the analogies between vital and conscious phenomena negatives the supposition that a law of such universal validity in the development of the physical life of the individual and of the race would halt abruptly at the frontiers of conscious life. Nothing could well have a greater antecedent probability than that the doctrine of recapitulation would apply to the conscious life of man with no less rigor than to his physical life. Students of genetic psychology accordingly turned to race history for light in which to examine the tangled skein of phenomena exhibited in the mental development of the child and the knowledge yielded up by genetic psychology is not without value to the student of ethnology.

In making the transfer of the doctrine from biology to psychology, psychologists and educators of wide repute and unquestioned ability have, however, at times seemed to forget an important item, *i. e.*, that in embryology we are concerned largely with structure, whereas in psychology we are dealing chiefly with function, and we

cannot transfer validly from one of these sets of phenomena to the other. The culture epoch theory furnishes an excellent illustration of the non-validity of such a transfer.

The doctrine of recapitulation is not confined in its application to the unfolding of embryonic life. It is applicable throughout the entire extent of morphological development. The deer upon attaining the breeding age develops a one-pronged horn which it sheds in due time. A year later it develops a two-pronged horn and thus in time it is equipped with a fully developed arborescent antler. Now this series of changes which may be observed at the present time during the life history of existing deer parallels the race history of the deer as far as this is revealed to us by the record of the rocks. The one pronged deer was gradually replaced by the two pronged deer and these in turn gave way to deer with more complex antlers. Other instances of similar import may be observed in the larval stages of lower animals, such as frogs and insects. In all these instances the ancestral structures which appear in the course of individual development may actually function, and thus the doctrine may be said to apply, indirectly at least, to physiological phenomena.

But the physical development of man and of all the higher animals is practically completed within the span of embryonic life where the recapitulated structures are prevented from functioning, and this suppression of function permits of an abbreviation and atrophy of the recapitulated structure which is wholly incompatible with normal functioning. Moreover, the suppression of function in these recapitulated structures hastens the process of development, and permits the individual to

attain a higher level of structural development than would otherwise be possible.

"There is a salamander which differs from most other salamanders in being exclusively terrestrial in its habits. Now, the young of this salamander before their birth are found to be furnished with gills, which, however, they are never destined to use. Yet these gills are so perfectly formed, that if the young salamanders be removed from the body of their mother shortly before birth, and be then immediately placed in water, the little animals show themselves quite capable of aquatic respiration, and will merrily swim about in a medium which would quickly drown their own parent."[1] We have here evidence of repetition of ancestral structure, but the repetition is purely morphological. The further back we go in the embryological unfolding, the less developed we find the ancestral structures which are indeed not *repeated* but *recapitulated.* Not one of the repeated or recapitulated structures which occur in embryonic life are destined to function in the life of the individual in which it appears. It is necessary to emphasize this truth that we may understand how wholly unwarranted is the application of this doctrine which is put forth in the culture epoch theory.

In the biological field we find nature doing her best to suppress the functions of all the recapitulated ancestral structures, and on the success of her endeavors in this direction depends the advancement of the creature in organization. "I ask the reader," says Romanes, "to bear in mind one consideration, which must reasonably prevent our anticipating that in *every case* the life history of an individual organism should present a *full* recapitulation of the life history of its ancestral line or species.

[1] Romanes, Darwin and After Dar., Chicago, 1906, vol. 1, p. 102.

Supposing the theory of evolution to be true, it must follow that in many cases it would have been more or less disadvantageous to a developing type that it should have been obliged to reproduce in its individual representatives all the phases of development previously undergone by its ancestry—even within the limits of the same family. We can easily understand, for example, that the waste of material required for building up the useless gills of the embryonic salamanders is a waste which, sooner or later, is likely to be done away with; so that the fact of its occuring at all is in itself enough to show that the change from aquatic to terrestrial habits on the part of this species must have been one of comparatively recent occurrence. Now, in as far as it is detrimental to a developing type that it should pass through any particular ancestral phases of development, we may be sure that natural selection—or whatever other adjustive causes we may suppose to have been at work in the adaptation of organisms to their surroundings—will constantly seek to get rid of this necessity, with the result, when successful, of dropping out the detrimental phases. Thus the foreshortening of developmental history which takes place in the individual lifetime may be expected often to take place, not only in the way of condensation, but also in the way of excision. Many pages of ancestral history may be recapitulated in the paragraphs of embryonic development, while others may not be so much as mentioned. And that this is the true explanation of what embryologists term 'direct' development—or of a more or less sudden leap from one phase to another, without any appearance of intermediate phases—is proved by the fact that in some cases both direct and indirect development occur within the same group of organisms, some genera

or families having dropped out the intermediate phases which other genera or families retain."[1]

Whether or not the doctrine that ontogeny is a recapitulation of phylogeny be accepted as true, the fact still remains that the doctrine as accepted in current biology lends no support whatever to the culture epoch theory, which is supposed to be the logical application of the doctrine to the process of education. The most important features of the biological evidence for the recapitulation theory may be summed up as follows: (1) We are dealing with recapitulation, for the most part and not repetition. With few exceptions the ancestral structures which reappear in embryonic life are mere rudiments utterly incapable of functioning. (2) Nature is constantly reducing and finally eliminating the ancestral phases in ontogenetic development. (3) High development depends upon the extent to which nature has succeeded, first in preventing functioning, and secondly, in abbreviating or eliminating ancestral structures. It is true that the insect pauses in the grub stage and functions and that the frog pauses in the tadpole stage, but it is well also to remember that the adults in these forms of life never ascend beyond the plane occupied by a frog or a bug. High organization, such as is to be found in man and mammals, is attained only where nature has succeeded in causing the parent to function for the offspring throughout the entire developmental series.

If education is to follow the lead of this doctrine, it must endeavor to carry the child's conscious life through the recapitulated phases of race history without allowing it to function in any of these phases. And it must, if it would attain a high degree of development in the mental

[1] Op. cit. p. 103.

life of the individual, hasten the child as much as possible through these ancestral phases. It must, moreover, by denying to the child all stimulus to functional activity in these early forms, cause the forms themselves to atrophy and gradually to disappear. It is indeed strange that the bearing of this embryological doctrine should be so completely misunderstood by the framers and advocates of the culture epoch theory.

The culture epoch theory was foreshadowed by Herbart and Froebel, but was first definitely formulated by Ziller who says: "Every pupil should pass successively through each of the chief epochs of the general mental development of mankind suitable to his stage of development. The material of instruction, therefore, should be drawn from the thought material of that stage of historical development which runs parallel with the present mental stage of the pupil." Professor Graves after citing this passage adds: "This theory of culture epochs, like the biological theory of 'recapitulation', of which it is a pedagogical application, is now admitted by most educators to be thoroughly inconsistent. While it has occasioned much academic discussion, few educators, besides Ziller, have ventured to embody it completely in a course of study."[1]

Had the culture epoch theory and its influences been confined wholly to Ziller and to his immediate disciples, the discussion of the subject would rightly belong to the History of Education rather than to the Philosophy of Education. But, unfortunately, the doctrine has had a wide and deep influence on education in this country. Consciously or unconsciously, it has modified text-books

[1] Graves, Hist. Ed. Mod. Tim., New York, 1913, p. 214.

and methods that are still in use in many of our schools and are likely to continue in use for many a day to come.

It is quite true, as Professor Graves says, that the doctrine is at present thoroughly discredited by educators who have an adequate scientific training. But unfortunately it has in the past found support in some of our most influential educational leaders and even should these same leaders now make a public retraction of their belief in the theory, it would take the usual time for the recantation to overtake the original statement.

In the Epitome of President Hall's Educational Writings, brought out by Dr. Partridge with the hearty endorsement of President Hall in 1912, the culture epoch theory holds a central place; nor does the work contain any hint that President Hall has changed his views on this matter. It would be difficult to find a clearer statement of the culture epoch theory than that contained on pages 106–108 of this work: "The child learns, and becomes adapted to, practical life by passing through all the stages through which the practical activities of the race have passed, and this is, at the same time, the highest type of culture which he can absorb. He must practice for a time that which shall be but a temporary interest in order to proceed, by nature's way, to the next higher step. . . . In the earlier periods in the development of all mammals, the embryo passes through stages that do not in the least indicate what the adult form will be and which from practical considerations would seem wrong and superfluous. And yet these stages are of the utmost importance, for many of the most essential higher structures could not be produced without them. Precisely this principle holds, to use a single illustration, in the growth of the tadpole's tail, which is in itself of no

conceivable use to the adult frog, *but contains the means of development of his legs.* This biological principle is more than analogous to the principle of human mental growth. It is the same principle. . . . The problem of education is to discover the stages and manner of transformations in the child, and learn how to facilitate growth, complete the coordination of these stages into a unity, supply the right culture or nutritive material suited to each stage. Only thus can we expect to find educational standards, to protect against the many influences in society—in home, school, church, civilization generally—which tend to break up the natural processes of growth of the child, make him precocious, drive him too early to specialized and practical life, and teach him what he is not ready to learn."

There is in this passage a curious blending of elemental biological truths with strange misconceptions which lead to an application of the doctrine in a sense wholly opposed to that which nature provides. Even if it be granted that each previous stage of embryological unfolding contains elements which, through metamorphoses, become the structures in the subsequent stage, it does not follow that the structure in its earlier form should be fully developed or should function in order to produce the transformed structure of the subsequent stage. In fact, the very opposite of this is what we find throughout the entire extent of embryonic development. Nature is busily at work transforming these structures and preventing all of them from full development and from functioning until the final structures are reached in the latter stages of development.

If we are to apply this doctrine in the field of education, therefore, it is clear that while we may find the

explanation to many of the phenomena exhibited in the development of the child's mind and heart in the fact that he is recapitulating in his mental life the history of his race, we must cooperate with nature in hastening the child through these developmental stages while preventing or reducing their function to a minimum, not by external force indeed, but by withholding the stimuli which would cause the child to remain in these stages and function instead of hastening forward to better and higher things. We must, in fact, cooperate with "the many influences in society—in home, school, church, civilization generally—which tend to break up the natural process of growth of the child."[1] Whether or not the doctrine of recapitulation be true as applied to morphological development of the higher animal, it is perfectly obvious that it lends no support whatever to the practice of inducing the child to linger in each ancestral phase of racial development that he is recapitulating, as is urged by the culture epoch theory and its advocates. And it is difficult to understand how a man of such wide scientific attainments as the President of Clark University could make such a fundamental error in the application of the doctrine of recapitulation as that contained in the following statement: "The first problem is to learn how to recognize the stages in which nature is at work, and we must then allow these stages free play, suiting instruction and culture to them with full confidence that the insight of nature and of the race is better than the wisdom of the individual, and that if nature be wrong, it will certainly be impossible to devise a method that shall contain less dangers of errors."[2] Were the view here expressed correct, a recon-

[1] Partridge, Genetic Philosophy of Education, New York, 1912, p. 108.

[2] Op. cit. 109.

struction of the entire work of education would be demanded, and if it be erroneous, it is of the utmost importance to correct the error. Unfortunately we are not now in a position to consider the question as if it were about to be proposed to the educational world. The error has already been widely accepted and is bearing abundant fruit of its kind. Those who have undertaken to carry the theory to its logical conclusion, are demanding that we set aside the child's social inheritance and frankly accept his physical inheritance as the guide to the development of his mental and moral life. They are urging all our teachers to take sides with the tendencies of the child's physical nature in opposition to the socializing tendencies "of home, school, church, civilization generally." Nor has the doctrine been confined to philosophical speculations on educational problems. It has taken on concrete and practical form in text-books and other forms of literature which are being put into the children's hands. It is embodied in methods which are being employed very widely in the public schools of the country.

As an illustration of what the culture epoch theory stands for in the primary rooms, we will turn to the "Industrial and Social History Series," by Katherine Elizabeth Dopp, Ph.D., of the University of Chicago. The first volume of this series appeared in 1903. The fourth volume was issued in 1912. The books are intended for the use of children in the primary grades.

In the first volume, the "Tree Dwellers," the author says: "I wish to take this opportunity to express my gratitude to Professor Dewey for the suggestions he has given me in reference to this series and to acknowledge that without the inspiration that has come through his teaching I should never have undertaken a work of this kind." There follows a litany of learned authorities

whose advice and cooperation were secured, or whose authority was invoked in support of the work.

This series of books attempts to carry the child through the various epochs in the development of the race beginning with the "Tree Dwellers." It is suggested that the children be brought to live over again as vividly as possible, through imagination and dramatization, the life of these Pleistocene people. The teacher is urged to impress upon the children that "although the father was more or less attached to the primitive group, it was the mother and child that constituted the original family." When the second child came the first was pushed off and made to shift for himself. In fact, the Tree Dwellers are presented as animals among animals, with little or nothing to distinguish them as human beings. They were without family life, without homes, other than those which they could provide for themselves in the tree-tops. They knew nothing of fire or of cooperative action. We are further told in the "Suggestions to Teachers" at the end of the book that "the problems with which the child at this time is grappling are so similar in character to those of the race during the early periods of its development that they afford the child a rich background of experience suited to his own needs."

The twentieth lesson of this series tells how two boys who, having slept in a tree all night, secured their breakfast. "The boys slipped down the tree and picked up their clubs. They crept up softly and peeped into the alders. 'There's nothing there,' said One-Ear. Bodo knew better. He noticed a hump among the leaves. He reached out his hand and touched it. It was a little calf that had been hid there by its mother. It scarcely moved as Bodo touched it. Its mother had taught it to lie still.

Many people might have passed it by. But Bodo had sharp eyes, and besides he was very hungry. So the boys killed the calf and began to eat the raw flesh. They ate until they were satisfied."

This excerpt is taken as a specimen of the phase of human life that the child of six and a half or seven years old is supposed to be reliving. Long ages pass before primitive man reaches the stage of refinement which the children of seven or seven and a half years are supposed to be reliving. The characteristics of this antique civilization may be judged from Lessons V and VI of the "Early Cave-Men:"

"THINGS TO THINK ABOUT

What do you think the Cave-Men will do with Sabre-Tooth's skin? What will they do with his teeth and claws? What will they do with his flesh? Can you think of what they might do with the bones? How do you think they learned to cook food?

Preparations for the Feast

How excited all the people on the hills were when they knew that Sabre-Tooth had been killed! Everybody wanted to see him. Young and old crowded around to see the monster as he lay stretched out on the ground. They gazed at the creature in silence. They admired his rich tawny stripes. Not a man on the hills had ever before been able to get such a skin. They all wished that they might have it, but they knew that it belonged to Strong-Arm. They examined the two large sabre-teeth. They felt of the smaller teeth and claws. At length the men began to quarrel about the trophies, but Strong-Arm waved them back. He claimed one sabre-tooth for

himself and allowed the other to go to the brave old man. When Strong-Arm spoke the men kept silent, for they knew that the trophies belonged to the bravest men. But they were given a share in the smaller teeth and claws. While they were loosening them with stone hammers, the women were hunting for their stone knives. They were soon busy taking off Sabre-Tooth's beautiful skin. When the heavy skin was off, they began to get ready for the feast. They ate pieces of raw flesh as they worked, and tossed pieces to the men and boys. They were all too hungry to wait for the feast. Besides, they were used to eating raw meat. But they had learned how to cook meat at this time. They had learned to roast meat in hot ashes. At first they roasted the animal in its skin, but now they knew a better way. They skinned the animal and cut out the ribs; then they buried them in hot ashes. They covered the ashes with hot coals. They cut slices of meat with their stone knives and put them on roasting sticks. Then they held these sticks over the hot coals just as we sometimes do today.

THINGS TO DO

Make believe that you are doing some of the work that the Cave-Men did, and see if anyone can guess what it is. See if you can cook something over the coals. Ask someone to read you a story that Charles Lamb wrote about roast pig.

VI

THINGS TO THINK ABOUT

How do you think the Cave-Men would act at a feast? What would they use for dishes? What would they do to entertain themselves and their neighbors? When would the neighbors go home?

The Feast

Nobody knew just when the feast began. Nobody set the table, for there was no table to set. But the women brought bowls they had made out of hollow gourds. Before the meat was half cooked everybody was eating. Some ate thick slices that had been partly roasted on sharp sticks. Others chewed raw meat from bones which they tore from the carcass. The children sucked strips of raw meat and picked the scraps from the ground. When the women lifted the ribs out of the hot ashes they found a nice gravy. They dipped up the gravy in their gourd bowls and gave it to the men. Strong-Arm dipped some up with a bone dipper that had been made from the skull of a cave-bear. Then he tore out a rib from the carcass and gnawed the meat from the bone. They all held what they ate in their hands. They all ate very fast, and they ate a long time. At last their hunger was satisfied, and they began to crack the marrow bones and scrape the marrow out with sharp sticks and bones. When the men became tired of sucking the bones, they tossed them to the women and children. Then the men joined in a hunting dance while the women beat time with the bones. The women chanted, too, as they beat time. They danced until all became tired and the visitors were ready to go. Then Fire-Keeper loaded pieces of meat upon the backs of the women, and all gathered around to see the neighbors start home. As soon as they were gone the Cave-Men prepared to rest for the night.

THINGS TO DO

Take turns in doing something that the Cave-Men did at the feast, and let the children guess what it is. Find some

good marrow bones and crack them. Find out whether we use marrow bones for anything today. If you think that you can, make something of the marrow bones. Can you think why bones are filled with marrow? See if you can beat time with marrow bones so as to help someone do his work. See if you can make dishes of pumpkins, squashes, melons, cucumbers, or anything else that you can find."

Nothing further is needed surely than such lessons as these to demonstrate the viciousness of the Culture Epoch Theory. Granting, for the sake of argument, that the child's unfolding conscious life at the age of seven and a half years presents a recapitulation of such primitive savagery as is therein portrayed, common sense, as well as science, would suggest that every possible means should be taken to prevent the latent greed and savagery of the child's nature from flaming into expression while he is passing through such dangerous developmental phases. To depart from such counsels of prudence, and cause the child to pause and function in these ancient ways, can have but one result, namely, to arrest the moral and cultural development of the child and drag him down to the level of the brute. It is scarcely necessary to point out the many other vicious features of these books such as leading the children to believe that society grew out of the accidental protection against wild beasts which was furnished by fire, and that religion grew out of lying and trickery. We cannot, however, omit one more illustration of the utter brutality of this class of child literature. We take it from "Eskimo Stories" by Mary E. Smith, of the Louis Chapman School of Chicago. Instead of going back to the hypothetical beast men of the long ago, Miss Smith seeks to clothe her narrative with verisimilitude by placing it among the eskimos of today and presenting

the children with the photograph of a little girl, who narrates the incidents as of her own experience.

After recounting the difficulties which the eskimo people encounter in getting water, the story continues: "Do you think that Nipsu or Agoonack, or their mother, or anyone would use this water to wash in when it costs so much time and labor? No! No! That would seem a sin to them. They do not know how good it is to be clean, but they know how hard it is to get water. Once Agoonack and Nipsu saw their mamma wash baby's face. She washed it with her tongue just as the mamma cats wash their kittens' faces. The baby's face grew almost white. It was a strange sight, and the children asked their mamma many questions. She told them that each of them had been washed in the same way. But this was long ago."[1] If those things were not in books written in our own day by women holding positions in our schools, and if they were not actually put into children's hands, one would scarcely believe that any woman, not wholly degraded or insane, could bring herself to so degrade motherhood in the eyes of the little ones committed to her care.

Pragmatism and the Gospel unite in establishing a test for the value of educational doctrines. "By their fruits you shall know them." Now if we are to judge the culture epoch theory by the fruitage which it is bearing in our midst, it is high time that every energy were bent to its extirpation before our people become wholly brutalized through its pernicious influence.

Of course, the illustrations cited above are extreme. It was for this reason they were selected that they might the better illustrate the trend of the doctrine. It should be noted, however, that such repulsive books as those

[1]Smith, Eskimo Stories, Chicago, 1902, p. 124.

from which we have just been quoting are far less dangerous than other books embodying the same tendencies masked in more pleasing garb. Books of this latter character are not likely to shock the sensibilities of decent people and are in consequence permitted to sow the seeds of evil in the minds and hearts of the little ones.

CHAPTER VI

MENTAL GROWTH

It is an unfortunate circumstance that modern psychology and education have failed to develop strictly technical vocabularies, and that they have instead employed popular terms of vague and indefinite meaning to designate strictly scientific concepts. The terms "growth" and "development" illustrate the difficulties which this procedure entails. In popular usage "growth" and "development" are frequently employed as synonymous terms, whereas the organic processes which these terms designate are quite distinct from each other and are at times separable.

The term "growth" indicates increase in quantity. Thus we may speak of "growth in knowledge," the "growth of conviction," a "growing boy," a "growing crop," a "growing delta," or a "growing trade." It is true that the term is not infrequently used to designate certain qualitative changes which were better referred to under the term "development."

Changes from simplicity to complexity, from homogeneity to heterogeneity, from latency to epiphany, are properly spoken of as developmental changes. The architect develops his plans; the photographer develops his negative; a complex trade may develop from the sale of a single commodity. Development as a vital process sums up in itself these various concepts. As the seed unfolds into the plant there is manifested a change from the simple to the complex, from the homogeneous to the heterogeneous, and what was latent in the seed is explicit in the plant. It is well, therefore, in biology, in psy-

chology and in education to employ the term "growth" to designate increase in quantity and to reserve the term "development" for the designation of the qualitative changes mentioned.

Increase in quantity is the central thought conveyed by the term "growth," but the term when applied to a vital process means much more than this. We may, in fact, distinguish several types of growth which differ markedly from one another while each one of them involves increase in quantity. The term may be applied to a building in the course of construction, to a forming crystal, to a young organism, and to the mind, but these several processes, while resembling one another in the resulting increase in quantity, exhibit striking differences in other respects.

In a certain sense, a building in course of construction may be rightly said to grow. Its volume increases in an arithmetical ratio as stone is laid upon stone or brick upon brick in its walls. The process consists of a mere aggregation of completed elements. Symmetry and function are attained only in the completed structure. This mode of growth results from the play of forces which remain external to the growing object.

The crystal may also be said to grow. During its formation it exhibits a progressive increase in volume. This increase, however, is something more than the mere aggregation of completed parts. The process of growth in the crystal consists in the laying down of layer after layer of a homogeneous substance on the growing surfaces. This process is more accurately described as accretion than as aggregation. The growing crystal tends to remain symmetrical and functional throughout the entire process of growth. It is growth without a trace of development. The difference between the large and the small crystals

of the same substance is purely quantitative. It should be further noted that the process of growth in the crystal results from the play of internal forces and proceeds in a geometrical ratio. The disadvantage of using the same term to designate processes that differ in so many essential respects as that exhibited by the building and the crystal is obvious, and the difficulty is still further increased by the use of the term to designate a vital process which differs radically from the two processes just noted.

Living organisms that increase in volume are said to grow, but the growth is not by aggregation of completed parts as in the building, nor yet by accretion as in the crystal, but by intussusception. The materials used in this growth are heterogeneous. A homogeneous food supply which is demanded by the crystal would not suffice for the growing organism. Moreover, unlike the crystal, once more the growing organism may, and usually does, exhibit simultaneously a progressive development.

When the term "growth" is imported into the realm of mind it evidently must be applied analogically since mental content is necessarily devoid of volume, but which of the three meanings of the term as applied to physical processes should be carried over into the mental world? If the term is to have any value in psychology, it must convey a definite meaning and the first step in determining this meaning must be the ascertaining of the process in the physical world that is strictly analogous to the mental process. Naturally organic growth will be the first to challenge attention, not only as supplying apt analogies to mental processes but as furnishing real homologies, since both the mind and the living organism exhibit vital processes that are subject to the general laws of life.

A consideration of the likenesses and differences ex-

hibited by these several processes of growth will not only aid in securing a correct use of terms, but it can scarcely fail to prove illuminating to the teacher whose duty consists in large measure in ministering to the processes of growth and development as they occur in the physical and mental life of the children committed to his care.

The growth of living beings resembles that of crystals in at least five important respects, in all of which both the crystal and the growing organism differ from the type of growth exhibited by a building in course of construction.

1. In the living being and in the crystal the process of growth is governed by internal forces, whereas in the growing building the process is controlled wholly by external forces applied from without by the builders.

2. In the growing organism and in the growing crystal all the materials involved in the growth become functional as soon as they are incorporated into the growing structure, whereas in the growing building the incorporated materials never function actively in the process of growth and all other function is suspended until the growth is completed.

3. The growth of the crystal and the growth of the organism proceed in a geometrical ratio, whereas the growth of the building proceeds in an arithmetical ratio.

4. In the crystal and in the growing organism symmetry is preserved throughout the process, whereas in the building symmetry is attained only in the completed structure.

5. Finally, the form of the growing building is determined wholly by an external cause, *e.g.*, the mind of the architect, whereas the form of the crystal and the form of the living organism are determined from within.

But while there may thus be traced a five-fold resemblance between growing crystals and growing organisms,

there may also be found many striking differences between these two processes of growth. The following four characteristic differences are noteworthy:

1. The crystal grows by accretion, whereas the living organism grows by intussusception.

2. The growth of the crystal is homogeneous throughout, whereas the growth of the living organism presents a series of developmental phases in which things latent in each previous phase are developed in a subsequent phase.

3. The material used by the growing crystal is homogeneous, whereas the food of the living being varies within certain limits.

4. The parts of the crystal are homogeneous and remain so throughout the entire process of growth, whereas the parts of the living being are heterogeneous and become increasingly so throughout the process of growth.

Now, it may be observed that mental growth in all its phases exhibits a striking resemblance to the process of organic growth. This is probably due to the fact that both processes are vital and that they are in consequence both governed by the same fundamental laws. In spite of this fact, however, the processes of organic growth and of mental growth are analogous rather than homologous.

Some of the more striking likenesses and differences

FOUR TYPES OF GROWTH

Elements	*Building*	*Crystal*	*Organism*	*Mind*
Source of food	Environment	Environment	Environment	Environment
Source of energy	Environment	Internal	Internal	Internal
Incorporated food	Inert	Functional	Functional	Functional
Ratio of growth	Arithmetical	Geometrical	Geometrical	Geometrical
Character of food	Heterogeneous	Homogeneous	Heterogeneous	Heterogeneous
Parts of structure	Heterogeneous	Homogeneous	Heterogeneous	Heterogeneous
Nature of process	Aggregation	Accretion	Intussusception	Intussusception
Form determination	External	Internal	Internal	Internal
Symmetrical	Completed	Throughout	Throughout	Throughout
Form modified by	Environment	Environment	Environment	Environment
Successive stages	Indeterminate	Uniform	Developmental	Developmental

observable among these four types of growth are set forth in the table on the preceding page.

Naturally the food that ministers to growth in all forms is derived from the environment. This is a corollary of the doctrine of the persistence of matter. The production of an increase of matter, however slight, would call for creative activity. Similarly, the ultimate source of all the energy exhibited in the various types of growth must be sought in the environment. This is a corollary of the doctrine of the conservation of energy. The appearance in a growing structure of energy in however minute quantity that is not derived from environment would be as great a miracle as the sudden appearance of matter that was not previously in existence in some other form. In the table above, the energy exhibited in the growing building is indicated as coming from the environment, whereas an internal source is assigned to the energy exhibited in the remaining three types. This, of course, merely means that the energy of these latter types is taken into the organism in latent form and released within the organism itself. The immediate, not the ultimate, source of the energy exhibited is internal. The important thing to note is that the energy required to further the process of growth is resident in the previously incorporated foodstuff. As a consequence of this, increased growth means increased rate of growth or increased tendency to growth, whereas in those forms of growth where the immediate source of energy must be sought in the environment, increased growth does not imply increased rate of growth nor increased tendency to grow. This consideration should have great weight with us in our attempts to secure the most advantageous form of mental growth in the children who are being educated.

Growth in all its forms is subject to modification by environmental influences. While the axis of symmetry in the growing crystal is determined by the nature of the substance, nevertheless environmental forces may prevent normal growth on one or more facets, thus leaving the stone devoid of external symmetry which, however, the lapidary may restore by cutting off the excessive growths.

The modifications induced in living beings by environmental influences are everywhere discernible. By destroying certain members of the species and allowing the remaining or selected members to perpetuate their characteristic variations, environment modifies the race of plant or animal. By artificial selection, the florist, the horticulturist and the breeder modify the forms of plants or animals in which they are interested. Environment modifies the individual no less than the race. Sunshine, moisture, soil, climate and prevailing winds modify forms of plant life and in a sense limit their growth. In like manner, the quality and quantity of food, occupation and various other environmental influences modify the forms of animal life.

Environment exerts a more potent influence on the growing mind and heart of man than it does on the growing crystal or the growing organism, and in this observable facts are in harmony with current theory. Not only is "the adjustment of internal to external relations" characteristic of all human beings, but we should not be far from the truth were we to assume that the place of any being in the scale of life is determined by the degree in which it possesses the quality of plasticity or the power of internal adjustment to external environments. This would lead us to expect that mental life in its growth would be more deeply influenced by environmental conditions than in any

other form of growth. In fact, the educative process consists mainly in so directing environmental influences that they may produce advantageous modifications of the individual and thus adjust him effectively to a given environment.

No matter how profoundly environment may modify the growth of the living being, it is not within its competency to determine the type or form of a living being. The tree may be modified by a trade wind and be twisted and dwarfed by it, but the influence which causes one seed to unfold into an oak tree and another into a rose is not resident in the environment. In like manner, each human soul contains within itself that which gives the stamp of individuality. Environment may prevent the individual from fully or adequately realizing the beauty or power of this inborn form or it may provide conditions which will render a reasonably full realization of the inward gift an actuality, but its effect throughout can never exceed that of a modification of the realization sought by the inward impulse.

Physical environment may, and often does, profoundly modify the conscious life of man. A race that has dwelt for any considerable time in the mountains exhibits mental and moral characteristics which differ markedly from those of a kindred race that has dwelt for an equal length of time on the plain. The dwellers in the frigid North differ in many ways from the children of the South. The denizens of the land of perpetual fog are easily distinguishable from the inhabitants of sunny climes, but it is in the human environment of man that we must seek for the most potent modifying influences. No man may hope to lift himself far above the social group into which he was born and in which he lives and moves. This

truth has been recognized in every race and clime and it has been coined into the adages of many peoples. Such sayings as "Similes cum similibus facilime congregantur," "Birds of a feather flock together," etc., do not express the causal relationship. The process, however, is not merely selective; it is dynamic. "Evil companionship corrupts good manners," and the stimulating companionship of noble men and women can scarcely fail to bring out the best that is in any individual.

The individual who would realize to the fullest extent the highest potentialities of his own life, must seek the most favorable environment, physical and social, and he must strive to lift up the social group in which he moves. Whether we wish it or not, we are by divine decree our brother's keeper. A railroad may open its lines through an unpopulated country, but if it is to succeed, it must encourage immigration and build up the prosperity of the communities which it serves. It is a short-sighted business policy for any individual or firm to seek to monopolize all the profits in the trade. The law governing moral and intellectual development is not dissimilar. In laboring for the betterment of our fellowman, economically, physically, morally and spiritually, we are at the same time laboring most effectually for our own highest good.

The individual from birth cut off from all intercourse with his fellowmen, even if he could support life, would realize but little of the potentiality of his own being. The hermit brought with him to the desert rich treasures from the common human store house. Otherwise his life would have been comparatively worthless. It is, in fact, easy to discern the profound and many-sided influences of environment on the growing life of our children and youths. But all this should not blind us to the

fact that the determining cause of character is not in environment, but in the depths of the individual soul. No influence, not even that of Divine Grace, is permitted to violate the sanctuary of life and alter the inward stamp given to the individual soul. The multitude who fed on the miraculous loaves and fishes followed Jesus to the other side of the lake and when He told them of the Bread from heaven on which they must feed if they would be saved, they could not believe Him and they went away and walked no more with Him. The Master summed up the case completely when He said "Amen, Amen, I say unto you, you cannot come unto Me unless it be given to you by My Father, Who is in heaven." Cardinal Newman reminds us of this same awful responsibility that rests upon the individual when he says that "Christ Who died for all yet shall not save all." Even the angels were obliged to make the choice on which their eternal destiny rested.

It is the business of education to provide, as far as may be, an environment which will permit of the fullest realization of each individual life. It may readily prevent this realization; it never can transcend it. Those teachers who fail to recognize the fact that their function is to minister to the processes of growth and development in the mind of the child, proceed with their work after the manner of architects and builders. They delve in the mines of truth and make their bricks of knowledge with which they proceed to build up stores of information in the minds of the pupils. In this procedure the intelligence of the pupil is used to recognize the several parcels of knowledge, to attach to each of them an appropriate label, and to store them away in the memory in accordance with any system that will enable him to find them whenever a future need arises.

The energy expended in building up this accumulation of knowledge proceeds rather from the mind of the teacher than from that of the pupil. The accumulation itself is a mere memory load. It lacks vital organization, resembling the structure of a building rather than that of a growing organism. Under these conditions the individual truths do not become functional in the mind of the pupil either in their mutual relationships or with reference to past or future mental growths. On the contrary, just as each brick placed in the wall renders the placing of subsequent bricks more difficult, so each parcel of knowledge that is stored away in the mind without having been lifted into its life renders it more difficult to place all subsequent parcels of knowledge. Memory, of course, like other faculties, grows in power with exercise, but there are few who would deny that the memorizing of the one hundredth unrelated fact is more difficult than the memorizing of the first.

Among the teacher's functions must be counted that of selecting appropriate mental food for the child mind and that of presenting this food in a form which will render its assimilation by the mind of the child profitable. An apt illustration of the results to be expected where the teacher fails to perform these functions adequately is given by Dr. McMurray.[1] "At six the child is morally immature; at fifteen perhaps the die has been stamped. This youthful wilderness must be crossed. We can't turn back. There is no other way of reaching the promised land. But there are rebellions and haltings and disorderly scenes.

"This is a tortuous road. Isn't there a quicker and easier way? The most speedily constructed road across this region is a short treatise on morals for teacher and

[1] Charles A. McMurray, Elements of General Methods, New York, 1903, p. 85.

pupil. In this way it is possible to have all the virtues and faults tabulated, labeled, and transferred in brief space to the minds of the children (if the discipline is rigorous enough). Swallow a catechism, reduced to a verbal memory product. Pack away the essence of morals in a few general laws and rules, and have the children learn them. Some day they may understand. What astounding faith in memory cram and dry forms! We can pave such a road through the fields of moral science, but when a child has traveled it, is he a whit better? No such paved road is good for anything. It isn't even comfortable. It has been tried dozens of times in much less important fields of knowledge than morals. . . . To begin with abstract moral teaching, or to put faith in it, is to misunderstand children. In morals, as in other forms of knowledge, children are overwhelmingly interested in personal and individual examples, things which have form, color, action. The attempt to sum up the important truths of a subject and present them as abstractions to children is almost certain to be a failure, pedagogically considered. It has been demonstrated again and again, even in high schools, that botany, chemistry, physics, and zoology cannot be taught by such brief scientific compendia of rules and principles."

A generation or two ago many branches of knowledge were taught in this way. There were catechisms of history, of grammar and of arithmetic. Even at the present hour there exist in our midst schools in which geography is still taught in this manner, and in which language study consists in memorizing the rules of grammar, and long lists of unfamiliar words, schools in which the children are required to learn by rote the rule in arithmetic before working the examples.

All such procedures result in dead accumulations instead of living growth. These accumulations tend to paralyze the mind of the child and to render it a mere receptacle for words and dead formulae. All originality and initiative disappear, and the child, having dwelt in such a school during the years required by law, leaves it without enduring interest in any subject taught within its walls.

Psychology and pedagogy demand a return to the method of teaching which was employed by the Master, who so frequently spoke of the truths which He came into the world to impart to the children of men, but which He refused to announce to those who were not ready to assimilate them and render them functional in their lives and conduct.

The temptation of the teacher to ignore the fact that the temple of life and mind can be built by none other than by the inward dweller is so persistent that it may be well, even at the risk of repetition, to examine a little more closely the meaning of the law of growth by intussusception which is the only law under which the mind and the heart of the child can grow.

Successive additions of the same quantity constitute an arithmetical ratio; successive multiplications by the same quantity constitute a geometrical ratio. Simple interest is an illustration of the former, compound interest is an illustration of the latter. The smith who receives 2 cents for each of the thirty-two nails with which he fastens the shoes on a horse is paid 64 cents for his work; but were he paid in a geometrical ratio, receiving 1 mill for the first nail, 2 mills for the second, 4 for the third, etc., the shoeing of one horse would make him a millionaire.

In all growths in which the energy expended is derived

immediately from the environment, the ratio of growth is arithmetical. The growth increments contribute in no way to the production of subsequent growths, while they do, for the most part, constitute an impediment to further growth which makes an ever-increasing demand on the external and unaugmented force causing the growth. The converse of this is true of the crystal. The energy expended in the growth is at least partially resident in the crystal itself; hence as its surfaces are enlarged the ratio of its growth increases; each molecule that is added to the growing surface of the crystal helps to secure the addition of all subsequent molecules.

In all organic growth, as in the growth of crystals, the energy expended is released within the growing structure, hence each molecule that is added to the living tissue remains an active agent thereafter in the incorporation of all subsequent molecules. In this type of growth beginnings may be infinitesimal but the small beginnings are more than compensated for by the fact that growth proceeds in a geometrical ratio. If this truth is clearly realized by the teacher, it will make him patient with the slowness of the process in the early days of mental growth, and it should lead him into an understanding of the fact that the adaptability of the truth which he presents to the mind of the child is of much greater consequence than the quantity of truth which the child assimilates. The ultimate potency of this inward principle of growth, where environmental conditions permit, is so great that it should remove from the teacher all solicitude concerning the quantity of the truth assimilated by the pupil.

A striking example of this truth may be found in the growing tendency of the micro-coccus. This bacterium is a spherule of living matter whose diameter is not more

than one micro-millimeter or the one twenty-five-thousandth part of an inch. It would therefore take twenty-five thousand micro-cocci placed side by side to measure one inch. If the micro-cocci be reduced to the form of cubes, 29,841,482,047,361 micro-cocci would fit in the space of one cubic inch. 1,000,000 micro-cocci rolled into one would make a barely visible speck one-tenth of a millimeter in diameter, and it would require 456,490 of these specks or 456,490,000,000 micro-cocci to equal in size an ordinary pea five millimeters in diameter. Or if it be preferred to view the matter in another way, the volume of a micro-cocci is to a pea as a pea is to a sphere eighty feet, six inches in diameter, or it would take as many micro-cocci rolled into one to equal a pea in bulk as there are peas in 222,033 bushels of peas.

It will be conceded that a single micro-coccus is, in truth, a small beginning, but under favorable environmental conditions, the micro-coccus will grow to double its size, and divide into two by simple fission in the course of one hour. At the end of the second hour there would be four micro-cocci and at the end of the sixth hour, sixty-four. This is still admittedly a small quantity, but the increase is relatively great and that is the all-important consideration, for at the end of twenty-four hours the number of bacteria produced would reach 16,777,216, and at the end of the forty-eighth hour 281,474,976,710,656, or a little over nine cubic inches. In three days the growing volume of bacteria would have reached the enormous proportions of ninety thousand cubic feet; in four days, the mass would measure more than 17,000,000 cubic miles and before the end of the fifth day it would have exceeded that of the entire earth.

Of course, this growth is never realized and from

the nature of the case it never can be realized, but the failure of realization is due, not to the inward force which lies back of all vital growth, but to the failure of suitable environmental conditions. This tendency to grow in a geometrical ratio is inherent in everything that lives. In physical life it would incorporate all the suitable food material in the world. The only limitations recognized are the impassable barriers of physical environment; and what is true in this respect of living things in general is preeminently true of the mind. By its very constitution it seeks to incorporate into itself all the truth, all the beauty and all the goodness in the world and with an ever-growing hunger it remains dissatisfied until it is immersed in the infinite. "Thou hast made our hearts for Thee, O Lord, and they cannot rest until they rest in Thee."

The mind that is not unduly burdened with memory loads and that has learned to assimilate whatever it takes into itself within reasonable time, grows in strength, in agility and in joy from day to day. Each advance made by such a mind opens out wider horizons and brings new truths to view. However slow the process of mental growth may seem in its initial stages, the final results are incalculably greater when measured even by quantitative standards than those which could be obtained by any process of accumulating and memorizing digests of unrelated truths.

The nature of the child mind and not the dicta of curriculum makers nor the whims and theories of teachers should determine the type of growth to which the educative process must minister. In this matter the conditions obtaining in the fields of knowledge give the teacher no choice. Present social and economic conditions render power and plasticity in the pupil more necessary

than accumulations of knowledge, and the manifold applications of science to the ordinary affairs of life demand a wider range than can well be imparted by any method of mere accumulation. Objective methods in the laboratories of science, and in the great laboratories of the commercial and industrial world, have so enlarged the domain of human knowledge that only those whose minds have been helped to grow along natural lines can ever hope to maintain a position on the growing surface of human knowledge.

In our day of extreme specialization, each worker can hope to produce in only one very small subdivision of human knowledge, but if he is to build well even here his mind must have received a many-sided development. All avenues of truth must be open to him so that the work of countless other groups of investigators may have its bearing and effect upon his own particular work. The higher the specialization, the greater is the need of a broad basis and of a broad sympathy in the various fields of human knowledge and of human culture. The languages become necessary as tools and means of intercommunication. The fundamental concepts of science are necessary to give balance and poise to judgment. A diversified knowledge is needed to meet each new emergency that arises in a rapidly changing environment. The powers of observation need training along many lines. For those in the humbler walks of life as well as for productive scholars the horizon of truth has widened indefinitely.

The hopeless impossibility of obtaining the required results by any method which aims merely at accumulation of knowledge is compelling a change from didactic to organic methods throughout the field of education. The equipment of knowledge necessary for success in the

present struggle for existence is so vast that it can be obtained only under the laws of life which secure growth in a geometrical ratio. In spite, however, of the quantity of knowledge demanded for successful achievement under present social and economic conditions, it is far less important than the quality of the knowledge or the way in which the knowledge possessed is related to the mind. Knowledge that is merely memorized is retained in the form in which it was imparted except for the abrasion and decay which always appear in due course of time. When, on the other hand, the truth taken into the mind is assimilated it becomes a part of the mind itself and partakes of the life and vigor and growing impulse of the mind. The only limit set in nature for the growth of such a mind is the limit of the created universe itself. The most obvious deduction from this line of reasoning is that the quantity of truth given to the child in the beginning of the educative process is the supremely negligible factor. What difference, it may be asked, does it make whether we watch the growth resulting from a single bacterium or from a cubic yard of bacteria, since, if environmental conditions permitted it, even the single bacterium would have converted the whole earth into its own substance inside of a week.

In presenting a truth to a child the only thing that need concern the teacher is to see to it that the conditions surrounding the child's mental growth be such as to secure the assimilation of the truth. She may rest assured that however slow this process may seem in its initial stages the results in the course of time will meet her most sanguine expectations.

CHAPTER VII

MENTAL DEVELOPMENT

The educative process is concerned with the production and guidance of mental growth but it is far more intimately concerned with the promotion and the control of the process of development through which the mind of the infant is progressively changed into the mind of the adult. It is, in fact, for the promotion and guidance of these two processes in the minds of the young that educational agencies have been called into existence by society.

No teacher is equipped for his work until he has a more or less definite knowledge of the nature of mental growth and mental development and of the way in which these two processes may be influenced and directed towards a desirable culmination. It is the business of the Psychology of Education to instruct the teacher in these matters but a certain understanding of them in their wider implications is an indispensable element in any adequate presentation of the Philosophy of Education. It will be necessary, therefore, to give here a more or less detailed account of what is meant by mental development and this we believe can best be accomplished by comparing various types of the process generally indicated by the term "development."

Strictly speaking, there are no stages in the growth of crystals The process involved remains uniform throughout. The large crystals differ from the small crystals of the same substance in size only. All the parts of the crystal are homogeneous and remain so throughout the entire process of growth. The axes of symmetry in the smallest crystal meet one another at the same angles as those in the largest. The essence of the crystal, the idea

embodied in it, is as completely expressed in the smallest crystal as in the largest. The successive stages of its growth present no new phase, no new idea; they differ from one another only in the extent of the growth along lines that are determined and expressed in the smallest crystal. The crystal presents a type of growth without a trace or a suggestion of development. The converse of all this is true of each of the other three types of growth discussed in the preceding chapter

Each successive stage through which a building passes in the course of its construction embodies a distinctive phase of the architect's plan. There is no rigid sequence, however, in these stages, nor is the subsequent stage always necessarily determined by the preceding stage.

The lines of the crystal's growth are *explicitly* laid down in the newly formed crystal. The phases of the developing organism and their sequence are contained *implicitly* in the germ, but the foundation stones of the building do not contain, either explicitly or implicity, the idea of the completed structure, nor do they determine the sequence in the stages of its construction. The plan is not an active agent in the growing building; it originates in the mind of the architect and is expressed by him in blue-prints and specifications before it is embodied by the builder in the successive stages of the growing structure. The sequence of these stages is determined in its broadest outlines, such as foundation and superstructure, walls and roof, by environmental forces, but the details wait upon the convenience of the builder. He may complete each wing in succession or he may carry forward the entire building simultaneously; he may lay down the floors before plastering the walls or he may reverse this process.

The growing building, in so far as it presents a series of stages that differ from one another, a series in which the simpler and the less perfect previous stage is in a measure a preparation for the subsequent stage, suggests the process of organic development. Nevertheless, the analogy between the so-called development of a building and the development exhibited in a developing organism is remote.

The living organism begins its separate existence as an apparently structureless germ, and it reaches its full epiphany in the adult stage by passing through a series of developmental phases that differ in many respects from the series of stages through which a building passes in the course of its construction. In the first place the successive phases in a developing organism are linked together in a rigid causal sequence. Each previous phase in this series is both an adequate preparation for each subsequent phase and its efficient cause; whereas, in the building, each previous phase is merely a preparation for a subsequent phase; it is in no sense its cause.

Secondly, it should be noted that in the developing organism each successive phase is reached through a reconstruction of the previous phase in which things that were latent or dormant in the previous phase are brought out and rendered functional in the subsequent phase; whereas the successive stages in the building are mere additions, the subsequent calling for no reconstruction of the previous stage.

The developing organism is, in a sense, a new, complete and functional being in each of its developmental stages. The quality and quantity of the food supply and other environmental conditions may indeed retard the developmental process in the growing organism, but they cannot alter the sequence of its phases which constitute an orderly

progression from the simple to the complex, from the homogeneous to the heterogeneous, from latency to epiphany. At times there occur in the organic series larval phases which are sharply marked off from preceding and following stages, such for example as the tadpole stage of the frog and the grub stage of the insect. At other times the developmental phases shade off from each other by imperceptible degrees. This is particularly noticeable in the embryonic development of higher animals where the vital functions are performed for the embryo by the parent.

The series of phases through which a higher organism passes in the course of its development runs parallel to a series of distinct organisms arranged in the order of their increasing complexity. A parallel series of organisms of increasing complexity have been revealed by the fossil remains contained in the earth's crust. In the latter half of the nineteenth century these facts led biologists to interpret the series of developmental phases in the individual organism as a recapitulation of its race history. This doctrine is usually expressed in the phrase: "Ontogeny is a recapitulation of Phylogeny."

While the series of phases occuring in the development of an individual organism runs parallel to the series of developmental phases which make up the life history of the species, still we must not allow this to blind our judgment to the fact that in spite of the many resemblances existing between these two parallel series of developmental phases, there are several noteworthy differences. In the race history each developmental phase was both physiological and morphological. It constituted the functional adjustment to the environmental conditions of adult life and was in consequence prolonged in its duration in some

proportion to the duration of the environmental conditions.

In the developmental series of the individual, on the contrary, only the later phase or phases are functional. The duration and completeness of development of each phase diminish progressively as we pass backward from the adult stage towards the beginnings of individual life. Moreover, each inherited trait tends to appear in the offspring at a somewhat earlier age than that at which it appeared in the ancestor and the more remote the ancestor in the race series, the earlier, relatively, does the inherited trait appear in the life of the individual, until finally the inherited phase ceases to be functional and is included in the embryological period. In the mammal practically all the complete developmental phases are included within the brief period of embryonic life. It is true that development does occur after birth, but this is for the most part the mere working out of details which can scarcely be looked upon as constituting a separate stage of development comparable to that which separates the grub from the moth.

The necessity of foreshortening the developmental phases in the individual series is obvious. Were it not for this foreshortening, the continuous development of the species would be impossible and the development of each generation would end where that of its predecessor ended.

Through the foreshortening of its developmental phases, the individual is put into possession of all the advances made by its ancestors while still in the morning of life and while its youthful plasticity enables it to move forward into new developments and new adjustments; each generation is thus enabled to add its modicum to the

rich inheritance which it has received from all the preceding generations of the species.

In the case of man and mammals the support given by the parent during the early days of development of the offspring greatly accelerate the process of foreshortening. In fact, the developmental series in its entirety is contained within the brief span of embryonic life. During this period the parent functions for the offspring and the latter's developmental phases are, in consequence, reduced to a mere shadowy succession of morphological stages in none of which the individual is required to perform any other function than that of securing the transformation of the present into the subsequent stage.

Notwithstanding the many-sided help afforded the embryo by the mother, we must not lose sight of the fact that it is not the mother but the force resident in the embryo itself that builds each successive developmental phase out of the materials contained in the previous stage together with the food supplied by the mother. The mother provides for the embryo protection, favorable temperature, oxygen and digested food materials suitable to the needs of the developing organism. The developmental phases through which the embryo passes do not constitute a functional adjustment of the embryo to an environment such as that which surrounded its ancestors in the days when these phases were first acquired by the race. It is this truth that has been so completely misunderstood by the advocates of the culture epoch theory, who endeavor to draw from organic development support for the practice of making the child pause at each step in his mental development to adjust himself to a human environment that has long since ceased to exist.

There is indeed a marked likeness between mental

development and the organic development on which it rests: there may be observed in the two the same transition from the simple to the complex, from the homogeneous to the heterogeneous, from latency to epiphany; the same transition from the implicit to the explicit; the same differentiation of structure and specialization of function; the same recapitulation of race history; the same foreshortening of the phases of individual development; and the same causal sequence linking the successive phases into the unity of individual life. Both are vital processes and both are governed by the laws of life. Nevertheless, the process of organic development and the process of mental development must not be confounded.

Physical life, no matter how highly it may be developed, never passes over into mental life. The most rudimentary phase of conscious life is utterly beyond the bounds of the highest phase of organic life. The processes of mental life are analogous not homologous to the processes of organic life and the analogy is not too close. The observable differences between the two processes are indeed as remarkable as are their likenesses: the sequence of phases remains rigid throughout the entire series of organic development, whereas in mental life there is progressive freedom in the sequence and in the character of the series as we pass from the lowest to the highest phases of individual or race development. In the lowest forms of conscious life and in the first stages of the infant's life, organic conditions practically determine the response to physical stimuli, whereas in the highest phases of adult human consciousness there is a large freedom in the response to all forms of stimuli. As human consciousness develops, it requires a progressive freedom from the control of instinct and from the other inherited modes of

action. Again, as man passes upward from the stage where sensation and feeling dominate to the stage where intellect and free will rule, he gains in power of self-adjustment to changing environmental conditions. Moreover, the more clearly he perceives natural law and fundamental truths apart from their concrete embodiment the freer he is in the mode of his response.

Instead of acting on the supposed identity of the processes of organic and mental development, education is, in fact, busied in large measure with the work of freeing the individual human being from the inherited and physically controlled modes of activity. Considerations such as these help to bring home to one a consciousness of the deep sin against civilization that is embodied in the culture epoch theory, which, instead of freeing the child from inherited and rigid modes of activity, would fasten upon his soul bonds which would link him inseparably to each successive phase of savage ancestral life.

In tracing the relationships which exist between organic and mental development too much emphasis can scarcely be given to the freedom exhibited in the character and sequence of the phases of mental life as contrasted with the rigidity of the series in organic development. It is this freedom that renders education both possible and necessary and it is in the light of this freedom and the responsibilities which it imposes upon the teacher that educational ideals and educational methods must be shaped.

Human consciousness passes from the instinctive phase of infancy through the imitative phase of childhood and youth to freedom and self-determination in adult life. This sequence is never reversed, but within the broad outlines thus laid down there is a large progressive freedom

in the phases of development. It is to this that we are chiefly indebted for the great variety of types observable in adult human consciousness.

The comparison between the phases of mental development and the series of organic developmental phases has furnished the inspiration for a great deal of our present literature on the fundamental problems of education. The subject is treated extensively by Professor Baldwin in his weighty volume on mental development from which we quote the following:

"The individual in embryo passes through stages which represent morphologically, to a degree, the stages actually found in the ancestral animal series. A similar analogy, when inquired into on the side of consciousness, seems on the surface true, since we find more and more developed stages of conscious function in a series corresponding in the main with the stages of nervous growth in the animals; and then we find this growth paralleled in its great features in the mental development of the human infant.

"The race series seems to require, both on organic grounds and from evidence regarding consciousness, a development whose major terms are somewhat in this order, *i. e.*, simple contractility with the organic analogue of pleasure and pain; nervous integration corresponding to special sense functions, including the congeries of muscular sensations, and some adaptive movements; nervous integration to a degree to which corresponds mental presentation of objects with higher motor organization and reflex attention; greater coordination, having on the conscious side memory, conscious imitation, impulse, instinct, instinctive emotions; finally, cerebral function with conscious thought, voluntary action, and ideal emotion. Without insisting on the details of this sketch—intended at this

point for no more than a sketch—certain great epochs of functional differentiation may be clearly seen. First, the epoch of the rudimentary sense processes, the pleasure and pain process, and simple motor adaptation, called for convenience the 'affective epoch': second, the epoch of presentation, memory, imitation, defensive action, instinct, which passes by gradations into, third, the epoch of complex presentation, complex motor coordination, of conquest, of offensive action, and rudimentary volition. These, the second and third together, I should characterize, on the side of consciousness, as the 'epoch of objective reference': and, finally, the epoch of thought, reflection, self-assertion, social organization, union of forces, cooperation; the 'epoch of subjective reference,' which, in human history, merges into the 'social and ethical epoch.'

"In the animal world these terms form a series—evident enough on the surface—its terms not sharply divided from one another, not in most instances exclusive before and after; but representing great places for emphasis, stages of safe acquirement, and outlooks for further growth. So we find the invertebrates, the lower vertebrates, the higher vertebrates up to, or somewhere near, man, and man—four stages.

"The analogy of this series, again, with that of the infant's growth, is, in the main, very clear: the child begins in its prenatal and early postnatal experience with blank sensations and pleasure and pain with the motor adaptations to which they lead, passes into a stage of apprehension of objects with response to them by 'suggestion,' imitation, etc., gets to be more or less self-controlled, imaginative, and volitional, and ultimately becomes reflective, social and ethical."[1]

[1] Baldwin, Mental Development in the Child and the Race, New York, 1895, p. 15 ff.

We have quoted this passage at length from Professor Baldwin, as it sets forth in detail the analogy between the processes of mental and physical development which have been so much misunderstood and so much abused by educators during the past few decades. It will be conceded that resemblances between the processes of organic and mental development are suggestive and that they are deserving of the close attention of all students of education. They have, in fact, furnished a new point of departure for educational theory. It is well, nevertheless, not to lose sight of the fact that there is another side to the question: the differences between the process of mental development and the process of organic development are as striking and as instructive as are their resemblances.

The major part of the organic developmental series is, in the case of the human infant, completed before birth, and therefore before mental development begins. It is well to bear this fact in mind lest it be supposed that the phases of organic development are actually linked with the corresponding phases of mental development, whereas, as a matter of fact, the organic developmental series is practically completed in the individual before his mental life begins. Moreover, the phases of organic development are controlled in their sequence and in their nature by causes internal to the organism; whereas, the phases of mental development are controlled to a very large extent, both in nature and in sequence, by environmental agencies of which the parent and the teacher are the most conspicuous elements. The former of these processes constitutes the child's physical inheritance, the latter, his social inheritance.

Perhaps the most striking difference between the process of organic development as it occurs in animal life

and in human life is to be found in the fact that the organic developmental process in man is morphological, not physiological. The actual physiological adjustments in the human individual are controlled to a very large extent by the play of non-instinctive conscious forces. This thought has been aptly stated by President Butler:

"In passing from the highest of the lower animals to man, we reach a most important stage in the development of infancy. In man we find the increasing bulk, and more than that, the increasing complexity, of the brain and central nervous system which accompany the complex adjustments and actions that make up life. But though the human animal is born into the world complete as to certain series of reflex actions, its lungs able to breathe, its heart to beat, its blood vessels to contract, its glands to secrete, an immense series of adjustments remains to be made. While those adjustments are being made, there is a more or less prolonged period of helplessness or infancy.

"The meaning of that period of helplessness or infancy lies at the bottom of any scientific and philosophical understanding of the part played by education in human life. Infancy is a period of plasticity; it is a period of adjustment; it is a period of fitting the organism to its environment: first, physical adjustment, then adjustment on a far larger and broader scale. This fitting of the organism to its environment on the larger and broader scale is the field of education. In other words, nature and heredity have so organized one side of animal life that it is complete at the time of birth. A large series of adjustments to the world around us, the series of adjustments that in the case of man make up the life that is really worth living, constitutes the life of the

mind or spirit. At birth, those adjustments are not yet made and they have to be slowly and carefully acquired. We are even born into the world with our senses, 'the windows of the soul,' locked, uncoordinated, unadjusted, unable to perform what is eventually to be their function. It is a familiar fact that sight, hearing, and touch all have to be developed and trained and coeducated, taught to act together, before the infant can appreciate and understand the world of three dimensions in which adults live, and which they have supposed to be the only world known to the human consciousness. While that period of plasticity or adjustment lasts, there is naturally and necessarily a vast influence exerted, not only on the child but by the child."[1]

Of all the observable differences between mental development and organic development, probably the most remarkable as well as the most significant difference lies in this, that in organic development all the way up through the animal series to man, including the embryological period of human development, the process is practically determined in its entirety by forces resident in the organism itself which thus play a leading rôle in physical heredity. Over against this it is to be noted that in mental development the control of each phase, as well as the control of the developmental series as a whole, comes in large measure from without. It is the chief factor in the child's social inheritance.

The child through imitation takes over to himself modes of activity which are exhibited by persons in his environment. His development is governed in no small measure by his individual experience and by the statements of others which he accepts at first without criticism. Finally,

[1] Butler, Meaning of Education, New York, 1915, p. 17 ff.

the higher stages of his development are governed by his intellect and free will acting in the light of the experience of the race and not of his ancestors only.

Attention has been called in this and the preceding chapters to the manifold differences which exist between the processes of growth and of development. It seems well, however, before concluding this chapter, to call attention to the following very significant relationship which exists between the two processes as they occur in the living organism and in the conscious life of man. While, for the most part, growth, both physical and mental, is accompanied by development, nevertheless, the processes are entirely distinct and are frequently separable. The growth of the body continues long after its development has practically ceased and the same may be said of the mind. Again, at the time during which both of the processes are occurring simultaneously they proceed in inverse ratios. When development is at its maximum, growth is at its minimum and, conversely, while growth is at its maximum, development is at its minimum. Probably 99 per cent of the development of the human embryo takes place before it reaches the growth of more than a few ounces. This is true of the ontogenetic development of all of the mammals and of the higher animals in general.

During the early developmental stages of the physical organism, growth impedes development and nature strives as far as possible to check it and hold it in abeyance so that normal development may run its course. During this period the only value of growth is to be found in the way in which it contributes to development. As the developmental process nears completion, rapid growth sets in. This is rendered necessary to the end that the organs in their final stage of development may attain the

size and strength necessary to perform the functions of adult life adequately.

It is necessary that the teacher should bear this truth in mind for, while he has it in his power to promote both the growth and the development of the mental life of the pupil, the best interest of the pupil demands that mental development should, as far as possible, precede mental growth. Arrested mental development may easily result from excessive and untimely mental growth. This is particularly true in the early stages of the educative process.

The aim, consequently, in primary education, and indeed throughout most of the period devoted to elementary education, is that the pupil's growth in knowledge should not be advanced beyond the point where such growth is necessary or helpful to mental development.

The period at which the emphasis should change from mental development to mental growth depends upon the extent of the education which the pupil is to receive. When it is probable that he will leave school upon the completion of the eighth grade, the period at which promotion of mental growth should normally take place must be advanced so that he may be prepared immediately to take up the duties of adult life. The best interest of the pupil who is to continue in school through high school and college demands that every effort be made to carry his mental development to the highest possible point before checking it by growth in knowledge. A practical recognition of this truth would profoundly modify the curriculum, the text-books and the methods now employed in many of our schools.

CHAPTER VIII

MAN'S RECOGNITION OF THE REIGN OF LAW

Primitive peoples lived in a world of chaos; they were unable to grasp the unity of nature or to recognize the unity of intellect and will that lie back of all natural phenomena. Wherever they saw regularity or felt purposeful change, they attributed the cause to a local deity made after their own image and likeness. It was natural, therefore, that they should worship the heavenly bodies and that they should have gods of the winds and waves, gods of the regularly recurring seasons, gods of the forests and the streams.

As man's intellect developed, his gods decreased in number and assumed their places in a celestial hierarchy such as we find described in the mythologies of Greece and Rome. The phenomena of heat and cold, of light and darkness, of pleasure and pain, of love and hate, of good and evil, quite naturally led man into some form of dualism. In the sublime doctrine of Monotheism, held by the Chaldeans and the Chosen People, we find the first clear recognition of unity in the power that governs the universe. But man recognized God as the Creator and Ruler of the universe long centuries before he discovered that there is a unity resident in nature or that natural law is intrinsic.

It is not easy to determine the exact underlying causes that led various peoples toward the doctrine of Monotheism. How much of this progress is due to scattered fragments of primitive revelation? Much of it may be undoubtedly traced to the psychological characteristics

of various peoples. Thus Dr. Allan Menzies,[1] speaking of the religion of India, says: "The Indian gods were too little defined, too little personal, too much alike, to maintain their separate personalities with great tenacity; nor did they lend themselves to a monarchical form of pantheon; no one of them was sufficiently marked out from the rest or above the rest, to rule permanently over them. Yet the sense of unity in Indian religion is very strong; from the first the Indian mind is seeking a way to adjust the claims of the various gods, and view them all as one. An early idea which makes in this direction is that of Rita, the order, not specially connected with any one god, which rules both in the physical and the moral world, and with which all beings have to reckon." There is here a definite groping towards unity and it would also seem that the unity in question is objective; that it is nothing else than the sum total of natural law in the physical and moral worlds. It is not perceived as emanating from the deity but as imposing limits to the powers of the various gods. Elsewhere, however, the growing recognition of order in the world carried with it, for the most part, a recognition of the unity and personality of the First Cause.

In the development of human thought, as in the development of all else in nature, the movement is from the general to the particular, from the simple to the complex, from the large movement to the details which it carries. Perspective is necessary for the perception of large outlines and for the recognition of fundamental truths; and so man saw order and regularity in the movements of the heavenly bodies long before he saw the same order and regularity beneath the details of the complex phenom-

[1] History of Religion, New York, 1897, p. 334 ff.

ena that surrounded him. He recognized law in the regularly recurring tides without suspecting that the same rigid law governed the movements of the storm-tossed billows. Newton sent a thrill of exultation through the world, not by discovering the force of gravity, but by discovering that the apple in its fall obeys the same law that holds the planet in its orbit.

Copernicus banished from the heavens the crystalline spheres of the Ptolemaic System and the endless complexity of cycle and epicycle and laid the foundation of modern science by framing a theory to fit observed facts instead of endeavoring to bend observed facts into conformity with existing theory. Galileo, Kepler and Tycho Brahe developed the heliocentric hypothesis of Copernicus and formulated the laws that govern the movements of the members of the Solar System. That these astronomers, however, recognized the intelligence displayed in the planetary movements without having traced them to their immediate underlying cause, is illustrated by the fact that Kepler assigned an angel to each planet to guide it in its course. With Newton's discovery of the universality of gravity, all bodies in the universe were seen to move in obedience to one universal law. As a consequence of this new development of science, astrology gave place to astronomy, alchemy made way for chemistry, and man at last recognized the reign of law throughout the realm of inanimate nature.

But this movement of thought did not end here. From the universality of the laws of nature to their intrinsic character the transition was easily and readily made. Thus, once the nature of light is understood, the law of its distribution is seen to follow as a necessary consequence. Since light radiating from a luminous point moves in

straight lines, the quantity of light falling on equal surfaces must be inversely as the squares of the distances of these surfaces from the source of light. In like manner, that all bodies move as if attracted by one another directly as their masses, and inversely as the squares of their distances, is seen to be more than an empirical formula. The law governing these movements is internal, not external; it is an expression of intellect, not of will; it is included in the essence of bodies and is indifferent to their existence. Upon the recognition of the intrinsic character of the laws governing its phenomena, inanimate nature became a province of applied mathematics.

The recognition by men of science of the intrinsic character of the fundamental laws of nature, soon led to very serious consequences. Men who occupied themselves with the study of natural phenomena, while neglecting to study Christian philosophy, were often led to deny the Dominion of God over nature and they sometimes lost sight of the very existence of the Creator. On the other hand, those Christian philosophers who neglected the study of nature, not infrequently felt themselves called upon to deny the inviolability of natural law in order to vindicate God's Supreme Dominion over nature. The misunderstanding which thus grew up between the representatives of Christian philosophy and the men of science is responsible for much of the atheism and agnosticism that has prevailed among men of science during the past two centuries, and it is at least partly responsible for the neglect of the natural sciences and the hostile attitude towards them which is sometimes to be found, even to the present day, among men of deep religious convictions and meager scientific attainments.

It is not surprising, indeed, that the Dominion of God

should be a more potent factor in the world than the findings of science to the faithful believer who knows how the winds and the waves obeyed the voice of Jesus and how disease and death were subject to His rule. But there is no conflict between the laws of God and the laws of nature. In every chapter of the warfare between science and religion the conflict may be traced to an abuse of authority. A man's authority can never be legitimately transferred from one field of science to another. The ablest jurist does not, through his knowledge of the law, acquire authority in the field of medicine, and the most eminent physician may be the merest tyro in the field of theology. In like manner, the most profound theologians may be totally devoid of ability in the interpretation of the laws governing the phenomena of nature.

Owing to the limitations placed upon human intelligence, it is not surprising that a man may attain certainty in his chosen field of research without being in the least able to reconcile his findings with equally certain findings in unrelated fields of truth. Indeed one may often find truths in the same department of science that the human mind is utterly unable to reconcile. Thus the concept of a straight line and that of a circle are so contradictory to each other that it is not possible to hold them both in the mind as identical, nevertheless we accept without question the statement that a straight line is a circle with an infinite radius. In like manner, the Christian believes the statement that there are three persons in God and the other statement, which he cannot reconcile with it, that there is one nature in God. His failure to be able to unite these two statements mentally does not, however, prevent him from believing both

statements and he looks forward to the time in the life to come when in the Beatific Vision he may comprehend those truths that remain a mystery to him while he dwells in the flesh.

According to Christian philosophy, the Being of God is the primary source of all truth and of all existence. It is this same truth held in the mind of God that constitutes the Second Person of the Blessed Trinity through Whom all things were made and without Whom was made nothing that was made. This same truth, in so far as it has been externalized by the will of God in the creative act, is the essence of all created things. Again, it is this same truth that man incorporates into his own mind when he comprehends the laws of nature, and that he in turn bodies forth in the creations of art. God is truth; and this Truth is eternal and unchangeable, whether it be in the Being of God, in the Divine Intelligence, or whether it be reflected in the essence of created things, in the mind of man, or in the creations of art. It is the mode of being or existence in the created world that is contingent upon the will of God. Whether the world exists or ceases to exist depends wholly upon the will of the Creator. St. Augustine writing on this subject says: *Conservatio est creatio continuata*, the conservation of the world is the creative act continued. This is only another way of expressing St. Paul's thought "In God we live, move and have our being."

The laws of nature are the expression of God's intellect in the world; the forces of nature are the expression of God's will in the world. It is surely not denying to God a perfection to say of Him that he cannot sin; that He cannot act untruthfully; that His will in its activity cannot be divorced from His intellect.

The Christian does not believe that creation expresses the sum total of God's power or the sum total of His activity in the world. The doctrine of the *Concursus Divinus* demands an added impulse from the will of God to move each passive faculty into activity. But this impulse, even as the creative impulse itself, is linked with intelligence and moves in the order of truth.

To the Christian philosopher, the miracle is not the only evidence of God's Dominion over nature. The regular order of nature is to him a constant witness of an over-ruling Providence of which the miracle is but a special instance. St. Augustine, commenting on the miracle of the Loaves and Fishes, says: "*Majus enim miraculum est gubernatio totius mundi, quam saturatio quinquin milium hominum de quinque panibus,*" to govern the whole world is a greater miracle than to satisfy the hunger of 5,000 men with five loaves. And he continues: "No one wonders at the former miracle, men wonder at the latter, not because it is great but because it is rare." And he calls attention to the fact that the same Power which multiplied the loaves and fishes multiplies each year a few seeds into an abundant harvest.

It is not easy to account for the attitude of men of science who adduce the inviolability of natural law as an argument against an over-ruling Providence. The declaration in Newton's Principia: "*Natura obediendo vincitur,*" by obeying nature we conquer her—should have led them into an understanding of the other truth that dominion over nature's processes is exercised through a knowledge of her laws. Every advance in natural science has added to man's dominion over nature. The ocean liner, the telephone, electric light, wireless telegraphy and telephony and the thousand applications of modern science demon-

strate nature's obedience to those who understand her laws. But an understanding of the forces of nature does not imply the power to alter or to suspend the elemental laws which express the modes of their activity. Man's dominion over nature is limited to the control of those processes which result from the play of combined forces. Through a knowledge of the primary laws of nature, man is enabled to regulate, within certain limits, the combination of forces and thus to govern resulting processes. Now, if the few glimpses of natural truth which constitute modern science have led man into so vast a dominion over nature, what must be the dominion of Him Who created the world and Whose thought is the substance of nature's laws.

The history of the long continued battles that were fought on the frontiers of life before man recognized unity and the reign of law in the inanimate world is second in interest only to the chapters on the warfare of science and religion. The belief in spontaneous generation, so long prevalent, obscured the lines of demarcation between the vegetable and the mineral kingdoms. From the earliest times down to the discovery of the microscope in the beginning of the seventeenth century, men believed that under planetary influence mice were bred from the mud of the Nile and that barnacles were changed into geese.

The microscope, which forever dispelled these myths as far as the grosser forms of life were concerned, at the same time brought into view the teeming world of microscopic life; and, while men accepted for all the higher forms of life, Harvey's dictum "*Omne vivum ex ovo*," many still clung to the ancient belief in spontaneous generation among all the minute forms of life. In spite of the brilliant researches of the Abbé Lazaro Spallanzani of Pavia, in

the closing decades of the eighteenth century, spontaneous generation continued to hold its own until Louis Pasteur removed the last vestiges of the supposed objective evidence for this theory and laid the foundations of aseptic and antiseptic surgery and preventive medicine in the germ theory of disease. But even after all the facts in the case were seen to harmonize with the laws of biogenesis and homogenesis, even after these laws were seen to be coextensive with life, the materialist and the monist refused to recognize the intrinsic character of these laws and they continued to believe that at some time in the past, under conditions that are still unknown to us, the forces of the inanimate world did actually produce living beings. Science, however, is not concerned with beliefs, whether they be of scientists or of others, and in so far as the science of biology has accumulated evidence bearing on the question of biogenesis or spontaneous generation, whether in the present or in the past, there is but one verdict: the evidence is all in favor of biogenesis. It gives not the slightest shadow of encouragement to the monist.

Men who believe that in physics or in chemistry there may be found an argument against the supreme Dominion of God, not infrequently find it difficult to recognize any other forces in the world of life than those contained in inorganic nature. On the other hand, the men who devoted themselves exclusively to zoology, botany and natural history in the past frequently failed to recognize the fact that the laws of physics and chemistry are obeyed throughout the world of life. They regarded organic chemistry as a science apart; they believed that life built all her wonderful structures in defiance of the laws of inorganic chemistry. This attitude of mind, however, has

been completely changed. The progress of biological science during the last half of the nineteenth century revealed to all students of nature the fact that the laws of physics and chemistry are coextensive with matter and that life, whatever be its intrinsic character, expresses itself in this world only through matter and in obedience to the laws of the material universe.

The rapid development of psychological science during the last quarter of the nineteenth century was due to an attempt to trace the manifold relationships that exist between conscious and unconscious vital phenomena. Along the frontiers of the conscious world were fought over again many of the battles that in the preceding quarter of a century had been fought out on the frontiers of life. As a result of the great volume of research work that has been carried on in this field, the realm of conscious life is seen to be set off by a sharply defined line from the vegetable and mineral kingdoms and to be divided by just as real, though a somewhat less obvious, line of demarcation, into the region of sentient life and the region of intellectual life. The meaning of the simplest conscious state is not to be found even in the most complete knowledge of matter and motion, nor is it included in the most exhaustive knowledge of the underlying and concomitant physiological phenomena. The science of neurology still remains the science of neurology and no amount of endeavor on the part of the behaviorist has been able to bridge the chasm between it and psychology, nor have the most painstaking researches been able to alter the fact that the operations of intellect and will still lie beyond and above the realm of sensation and feeling.

Were some new discovery to enable us tomorrow to bridge the chasm between life and non-life, between phys-

iology and psychology, between the world of sense and the world of intellect, and thus reverse the whole trend of scientific progress, it would not in the least affect the Christian's belief in God or change the data on which Christian philosophers have ever based their belief in a Creator. But as the case stands, scientific research in these various fields has ever tended more and more to demonstrate the existence of impassable chasms between these various classes of natural phenomena and incidentally they furnish a strong argument in favor of creation, since there is no other conceivable way at present to account for the beginnings of life on this planet, at a time when the conditions had become such as to permit of the existence of living protoplasm and of the appearance on the earth of sentiency and intelligence at still later periods of time. It is not science, therefore, but deep-rooted antecedent prejudice that leads men to ignore the breaks in the natural series and to refuse to accept any unjointed links in nature. Men may still continue to believe in monism, but they cannot draw support for such belief from modern science.

Thomas Huxley, who will not be known to posterity as a friend of theologians, thus points out the absurdity of the attempt to bridge over the least conspicuous of these chasms: "Nobody, I imagine, will credit me with the desire to limit the empire of physical science, but I really feel bound to confess that a great many very familiar and, at the same time, extremely important phenomena lie quite beyond its legitimate limits. I cannot conceive, for example, how the phenomena of consciousness, as such and apart from the physical process by which they are called into existence, are to be brought within the bounds of physical science. Take the simplest possible example,

the feeling of redness. Physical science tells us that it commonly arises as a consequence of molecular changes propagated from the eye to a certain part of the substance of the brain, when vibrations of the luminiferous ether of a certain character fall upon the retina. Let us suppose the process of physical analysis pushed so far that one could view the last link of this chain of molecules, watch their movements as if they were billiard balls, weigh them, measure them, and know all that is physically knowable about them. Well, even in that case, we should be just as far from being able to include the resulting phenomena of consciousness, the feeling of redness, within the bounds of physical science, as we are at present. It would remain as unlike the phenomena we know under the names of matter and motion as it is now. . . .

"I do not suppose that I am exceptionally endowed because I have all my life enjoyed a keen perception of the beauty offered us by nature and by art. Now physical science may and probably will, some day, enable our posterity to set forth the exact physical concomitants and conditions of the strange rapture of beauty. But if ever that day arrives, the rapture will remain, just as it is now, outside and beyond the physical world; and, even in the mental world, something superadded to mere sensation. I do not wish to crow unduly over my humble cousin the orang, but in the aesthetic province, as in that of the intellect, I am afraid he is nowhere. I doubt not he would detect a fruit amidst a wilderness of leaves where I could see nothing; but I am tolerably confident that he has never been awe struck, as I have been, by the dim religious gloom, as of a temple devoted to the earthgods, of the tropical forests which he inhabits. Yet I doubt not that our poor long-armed and short-legged friend, as

he sits meditatively munching his durian fruit, has something behind that sad Socratic face of his which is utterly 'beyond the bounds of physical science.' Physical science may know all about his clutching the fruit and munching it and digesting it, and how the physical titillation of his palate is transmitted to some microscopic cells of the gray matter of his brain. But the feelings of sweetness and of satisfaction, which, for a moment, hang out their signal lights in his melancholy eyes, are as utterly outside the bounds of physics as is the 'fine frenzy' of a human rhapsodist."[1]

The clear recognition of the line which separates consciousness from the realm of unconscious life only brings out in stronger light the fundamental unity of all nature, for in spite of this line of demarcation, consciousness in all its phases expresses itself in this world only through material and vital phenomena, and in obedience to the laws of these lower realms of nature. In consequence of this, conscious phenomena are extremely complex and difficult of analysis, and it is not surprising that they constitute the last realm of nature in which man has been brought to recognize the reign of law.

Plant life is governed by laws peculiar to itself, but these laws operate in harmony with the laws of the mineral kingdom. So, too, sentient life is governed by its own peculiar laws which operate in harmony with the laws of the vegetable and mineral kingdoms; and, in like manner, the human intellect and will, in all their processes, function under laws which find no application beyond their own domain. Nevertheless, intellect and will must operate in conformity with the laws which govern the lower realms of nature.

[1] Huxley, Evolution and Ethics, New York, 1894, p. 122 ff.

Without in the least confusing these various truths or natural phenomena, man has come at last to recognize the fact that all the processes of nature, from the swaying of the planet and the flowing of the tide to the highest movements of thought and emotion, are under the control of laws which are objective and intrinsic. And he has learned further that his dominion over these phenomena is and must always remain in direct proportion to his knowledge of the natural laws which express the mode of activity of the forces lying back of the phenomena.

The recognition of the reign of law has brought into existence in our own day a large and varied group of sciences and it has profoundly modified many of the older sciences. But nowhere does the recognition of the reign of law demand so complete a change of attitude as in the school. Every subject taught must be presented in a new way and be clothed with a new interest. In fact, the very meaning of the term education has undergone a profound change. The teacher has ceased to be a mere purveyor of facts; his function is to minister to the growing mind, to guide the complex processes of development that are taking place in the minds and hearts of his pupils. He has come to realize that the process of education as it takes place in the mind of the pupil is a vital process which is governed in all its phases by the laws of life and mind. The recognition of the reign of law in the realm of mental life has brought home to the educator the realization that his power over the processes of development in the minds and hearts of his pupils must always remain in direct proportion to his knowledge of the laws of life and mind that govern these processes.

CHAPTER IX

THE FUNCTION OF EXPERIENCE

The recognition of the reign of law in the realm of mental life demands not only that the teacher be familiar with the fundamental laws governing the mind in its growth and development, but it calls for many profound changes in educational aims and in educational methods.

It has always been the aim of education to secure the adjustment of the pupil to the environment into which he must enter on leaving school. In the past, however, the aim of education was to adjust the individual to the concrete facts of his environment, whereas a recognition of the reign of law in the realm of life makes it necessary to adjust the pupil, not to the facts, but to the laws governing the facts of the environment. The older aim of education sought to build upon the native plasticity of the infant a set of rigid habits calculated to secure serviceable adjustments to relatively static social and economic conditions. The present aim must be to build up basic habits which will permit of constant and facile modifications to meet rapidly changing conditions in the adult human environment. The older aim throughout the entire educative process was chiefly to secure mental growth. At present the aim in the early part of the educative process is chiefly the securing of mental development.

A rational system of education in our day must recognize among others the following facts:

First: The child, on coming into the world, differs from the animal in one important respect: its instincts are largely atrophied; it is almost completely plastic, but this plasticity is of the passive sort. The child is open to all

kinds of impressions, and the manner of its adjustment to its environment depends on the sort of education it receives.

Second: There is awaiting the child a social inheritance accumulated by the efforts of the race. To this inheritance the mind of the child must be adjusted. Here again, the mode of adjustment of the child is determined by the prevalent system of education.

Third: In some systems, the Chinese for instance, the aim is to have the child take over in rigid, unchanging form the various elements of its inheritance. The result is to substitute for the original plasticity of the child a fixed way of thinking and acting which is simply a repetition of the thought and action of the past without regard to the changes in the environment.

Fourth: In other systems, notably the Christian, the object is to have the child enter into its inheritance from the past, but at the same time to widen out its freedom. The original plasticity disappears but the disappearance is followed, not by rigid form, but by a higher activity and a greater power of self-determination with reference to the changing environment.

Fifth: The means by which this end is obtained consists in leading the mind from adjustment to the particular concrete case to a broader sort of adjustment in which the mind looks beyond the concrete fact to the underlying principle or law. It is not merely the several items of knowledge transmitted from the past that the mind must obtain, but rather an insight which enables it to see them in their relations and hence to shape its actions in accordance with what is fundamental. In a word, not only must the teacher act in obedience to the laws governing the mind's unfolding, but his chief aim must be to

lead the pupils to recognize these laws and to obey them. The teacher must, therefore, aim, not so much at the building up of adequate adjustments to environment, as at the building up of plastic or modifiable adjustments to environment.

It has been repeatedly pointed out that the human infant is born into the world with a wholly inadequate set of adjustments to the environment in which he is destined to live. In fact, he differs from the higher animals, not so much in his ability to acquire new adjustments, as in his inability to live without the adjustments which he acquires for himself through his own experience or through the experience of the race.

It should be noted here that the phrase "acquiring new adjustments" may lead the unwary into a grave error, for there is in reality no such thing as acquiring new adjustments. Mental life is a continuity, and the most that experience can do, whether it be personal or racial, is to modify the preexisting adjustments.

The instincts of the young animal are practically rigid and unmodifiable, while the instincts of the human infant are rudimentary and plastic, and they are therefore capable of taking on profound modifications. These modifications may be, from the beginning, rigid, unchanging habits, and where this is the case there is present an arrest of development. The education that would effectively lead the child into a full measure of the inheritance which the race holds in trust for him, must, therefore, avoid with scrupulous care the implanting of rigid and unmodifiable habits in the young child. There is a limit fixed by nature to the plastic period of childhood, and while this limit may be pushed forward by an education that is conducted in accordance with the laws of

mental development, it cannot be wholly removed by any method of education that has thus far been devised.

Professor Bagley[1] thus formulates what he conceives to be the most fundamental principle of education: "Fundamentally the possibility of education depends upon the capacity of the organism to profit by past experiences. In one way or another the facing of past situations comes to modify present and future adjustment. Education in its broadest sense means just this: acquiring experiences that will serve to modify inherited adjustments." Evidently this definition should be corrected so as to read: acquiring experiences that will serve to modify inherited or previously acquired adjustments, for the educative process as it is actually carried out is far more extensively occupied with modifying previous habits than with modifying the meager inheritance of the child's instincts.

There is no room to doubt the fact that experience is, and must always remain, one of the most important factors through which education attains its various aims. This point of view, moreover, tends to bring out in a clear light some of the striking differences which separate man from the higher animals. Commenting on this phase of the question Professor Bagley[2] says: "Whatever theory may be called upon to explain the origin of instinct, however, there can be no doubt that a large number of animals are entirely dependent upon instinctive reactions for adjustment to the environment. Reaction with them is purely mechanical, the same stimulus or combination of stimuli uniformly giving rise to the same adjustment. Such animals are not able to apply experience to the improvement of adjustment, and are consequently not amenable

[1] The Educative Process, New York, 1906, p. 3.
[2] *Op. cit.*, p 6.

to the influences of education. At just what point in the animal series the lower limit of educability is to be placed is still a matter of dispute, but it is generally conceded that the mammals, the birds, and at least some of the fishes are able to profit by experience in varying degrees, while the invertebrates and the primitive protozoa probably lack this capacity. . . . But while man shares with some of the higher vertebrates the capacity for education, there is one point in which his position is practically unique. Man *must* be subjected to an educative process before he can complete his development, and this is true in like degree of none of the lower orders. "The moth is 'born' just as good a moth as either of its parents. But the infant, even if he could reach maturity without the aid of other human beings, would certainly not be so good a man as his father. What he would lack are the great essentials of human life that are transmitted, not directly through the germ cell, but indirectly by social contact—culture, 'education,' and civilized habits." [1]

The apparent linking together of man and the higher animals in the foregoing passages should not lead to any hasty conclusions concerning man's place in nature or even concerning Professor Bagley's view of the matter, for he says a little later on in the same chapter: "While it is undoubtedly true that some of the higher forms below man train their young during a plastic period of infancy, it is not altogether clear that this training forms an appreciable advance over the transmission of characters through physical heredity. That is to say, the training in itself is largely instinctive, following the same plan generation after generation, and influenced very little, if

[1] *Op. cit.*, p. 9.

at all, by the experience of the parent. And at the very best, of course, the possibility of transmitting experience is, in animals below man, greatly curtailed by the lack of an efficient medium of communication. It is clear, then, that man's supremacy in the animal series is due to his ability to profit, not only by his own experiences, but also by the experiences of others. Not only is this true, but it is also not to be doubted that, without this two-fold capacity, man would be far below many other vertebrates and would be placed at a tremendous disadvantage in the struggle for existence.[1]"

This same thought is expressed in an oft quoted passage from the pen of J. W. Powell: "Every child is born destitute of things possessed in manhood which distinguish him from the lower animals. Of all industries he is artless; of all institutions he is lawless; of all languages he is speechless; of all philosophies he is opinionless; of all reasoning he is thoughtless; but arts, institutions, languages, opinions, and mentations he acquires as years go by from childhood to manhood. In all these respects the new-born babe is hardly the peer of the new-born beast; but, as the years pass, ever and ever he exhibits his superiority in all the great classes of activities until the distance by which he is separated from the brute is so great that his realm of existence is in another kingdom of nature."[2]

The human infant stands almost alone in his capacity to profit by his own experiences and he stands absolutely alone in his capacity to profit by the experience of the race. It is still an open question with biologists whether the animal can transmit in any degree acquired characteristics through the channels of physical heredity, but all

[1] *Op. cit.*, p. 14.
[2] Cf., A. F. Chamberlain, The Child, London, 1900, p. 1.

students of the subject are agreed as to the substantial truth of the statement that acquired characteristics cannot be so transmitted. It is, on the contrary, the indisputable prerogative of man to transmit to his offspring, through social heredity, acquired characteristics. Experiences that modify adjustment certainly give rise to acquired characteristics.[1] And it is precisely the business of education to transmit to the offspring of each generation as large a share as circumstances will permit of those acquired characteristics which have in the past proved serviceable to the race.

From this point of view it may be well to conceive of the sum-total of the child's social inheritance as experience, but this use of the word "experience" is liable to generate misunderstandings. Waiving the question for the present as to whether the child's social inheritance does not contain elements which have a supernatural origin, there can be no doubt that the child is affected in an entirely different way by his personal experiences from the way in which he is affected by the experiences of others, whether these be conveyed to him through language or through art or in any other manner known to the educator.

When it is said that "experience is the best of teachers" it is not "race experience" but personal experience that is usually meant. The saying, in fact, involves a contrast between the results of personal experience and the body of wisdom derived in so large a part through race experience which it is the business of education to transmit to the pupil. In a certain sense it is true that "experience is the best of teachers," but it must not be forgotten that experience is at the same time the slowest of teachers and the most expensive.

[1] Cf., Bagley, *op. cit.*, p. 21.

In spite of the brain power with which nature has endowed the human infant, in spite of his native tendency to profit by his own experience, which tendency he inherits to a degree far surpassing any other animal, his progress on the way towards the high plane of civilized life on which man now lives would be infinitesimal were he abandoned to the light derived from his individual experience. But, on the other hand, it must be remembered that the child has no means of profiting by race experience, no means of taking over to himself his social inheritance, except through his individual experience. However limited in extent, therefore, may be the results of his individual experiences, these are absolutely indispensable to him, forming as they do the sole key by which he may unlock the rich stores which await him in his social inheritance.

Personal experience has two chief functions to perform in the educative process: it is to the child a means of modifying and improving his adjustments to his environment and it is a means of enabling him to still further perfect his adjustments to environment through the experience of others.

Every experience of the child has its immediate effect in modifying his adjustments to his present and future environments, and it has its indirect effect also in determining the character and extent of what he may later on take over to himself from the wisdom and experience of the race. Hence the importance of guiding the child in the acquisition of personal experiences. If these experiences are properly selected with reference to the child's present condition and with reference to his future development, the foundation of his education will be well laid. And, on the other hand, if he is led into experiences for

which he is not prepared, or into experiences that will turn his development into wrong channels, the result will be either an arrest of mental development or a development of those characteristics which will unfit him either in the present or in the future to take his place as an efficient member of civilized society.

Experience, it must be remembered, will function just as efficiently in the wrong as in the right direction. Fagin deliberately took advantage of this fact in educating Oliver Twist to steal, and Dr. Katharine Dopp, with probably the best of intentions, leads the unfortunate children who may be required to use the "Industrial and Social History Series" into bestial ways by inducing them to live through in imagination such scenes as "The Feast of the Cave Dwellers."

The Master warned His followers against the danger of destroying the lives of the little ones by exposing them to vicious models or to experiences which are calculated to produce evil adjustments: "And whosoever shall scandalize one of these little ones that believe in Me; it were better for him that a millstone were hanged about his neck, and he were cast into the sea."[1]

The child's individual experiences may be selected so as to produce any one of the following three effects: (1) a definite arrest of mental development in any given direction; (2) a development in a wrong direction, and (3) a development in the right direction.

A series of experiences of a disagreeable and painful character is calculated to build up inhibitions against activities in the future of a similar nature, and hence they cause the arrest of mental development in the direction in question. Thus the rigid observance of the Puritanical Sabbath has arrested the religious development of many a

[1] Mark ix, 41.

child, and it has given to the world multitudes of men who avoid church and who find in themselves no response to the abundant blessings which religion has to offer.

The same result in a somewhat modified form has frequently been reached through the practice of compelling the children, under threats of punishment, to memorize catechetical formulae which are unintelligible to them. And we may trace to the same source the condition of many a high school pupil who will tell you in a moment of confidence that he has no talent for mathematics, although he will frequently assure you that this lack of talent is due to his physical inheritance instead of to his early school environment and to the vicious methods employed in teaching the elements of this particular science.

It is true that in such cases as we have here cited the disagreeable character of the experience is not the sole factor in building up the inhibition. The root of the evil is to be found in the unpreparedness of the child for the experience that is being forced upon him prematurely.

The recognition of the fact that evil companionship corrupts good morals is as old as the world. The notion that Socrates was corrupting the youth of Athens led his fellow-citizens to impose upon him the death sentence. And society has, at all times, found it necessary to protect youth against disseminators of false and dangerous doctrines no less than against those who would lead the innocent into immoral practices. But punishment, no matter how drastic, inflicted upon the evildoers seldom proves effective in arresting further development along these evil lines. The reason for this failure may be found in the fact that the vicious experiences into which these wicked people lead the youths whom

they are able to reach lies so close to the natural development of man's animal nature that vital continuity is easily and effectively secured.

The potency of well-chosen and worthy examples in leading children to a noble development is universally recognized. It is for this reason that we seek worthy companionship for the young, and that we hold up to their imitation the lives of great and noble men and women. Christ commands His disciples to follow in His footsteps and to imitate His example. And to secure imitation of their virtues, the Church lifts to her altars models of virtue taken from every age and from every station of life.

Education is coextensive with life, for experience is the great teacher and does its work at all times and in all places, although its efficiency varies greatly as we pass from childhood to adult life and from the haphazard experiences engendered by daily contact with environmental forces to the deliberately selected series of experiences which are controlled by educative agencies.

The effect of experience, however, is so uncertain and its direction may be fraught with such grave consequences for good or evil to the individual and to society that it would be highly imprudent to expose the child to haphazard experiences until such time as he has attained an individual development which will enable him to select prudently the experiences to which he will subject himself.

The home is the first and the most important of schools; it shelters the early days of the infant's life and parental love controls the experiences to which the little one is subjected until such time as age and conditions make it possible for the school and the church to share this responsibility.

To intelligently control the child's experiences and his

education in general, three things are indispensable: (1) The teacher, whether he be parent, priest, or presiding officer in the school, must hold a clear and definite ide l of the kind of men and women into which he wishes the children committed to his care, to develop. (2) He must understand the children over whom he presides: He must know the present status of their mental life and the laws which govern their unfolding minds and hearts; and (3) he must know the means that are at his disposal for the performance of the great task which he undertakes, *i.e.*, the transformation of children of the flesh into children of God.

To impart to future teachers this three-fold qualification is the express aim of the normal school and the teachers college. But the scope of these schools is confined, for the most part, to the imparting of skill, in applying to the process of education that which the candidate already possesses. Before entering the professional school in which a beginning is to be made in acquiring the difficult art of teaching, the candidate should possess at least an elementary knowledge of general psychology, a good working knowledge of genetic psychology and a mastery of a goodly share of the social inheritance of the race, and he should have realized in himself a worthy personality.

With such a foundation to build upon, the professional school may hope to graduate teachers who will be able to guide intelligently the children committed to their care, both in the selecting of personal experiences and in the profitable utilization of those experiences in the taking over of their social inheritance.

Part II

Educational Aims

CHAPTER X

THE ULTIMATE AIM OF CHRISTIAN EDUCATION

Man's physical inheritance does not differ in nature or in trend from the inheritance of the higher animals. The differences discernible are only differences of degree. The human infant's instinctive inheritance is insufficient to govern life's processes and to bring the infant securely to man's estate. Human instincts are rudimentary or vestigial, but all there is of them is purely animal and egoistical.

If education could do nothing more than bring about the full development of what is laid down in the child's physical heredity, then the ultimate aim of education would be the highest possible development of man's animal nature—of his greed and lust and self-assertion.

It is, of course, well to secure a full development of man's physical nature. Life is enriched by each addition to the keenness of his senses, by each addition to the strength and agility of his muscles, by each increase in the vigor of his vital processes. The accomplishment of this purpose is a legitimate aim in education so long as it is held in due subordination to the higher aims of life.

That there are educational leaders who seek for the ultimate aim of education in man's animal inheritance may be seen by such statements as the following from the pen of Dr. Bobbitt: "The child cannot be moulded to our will. The design laid in heredity is the only one that can be worked out in actuality."[1]

The tendency to seek the ultimate end of education in

[1] Proc. Child Conf. Worcester, 1909, p. 74.

man's physical inheritance is, in fact, inseparably bound up with the culture epoch theory. Dr. Partridge, in his Epitome of President Hall's Educational Writings, says: "The new knowledge of the nature of childhood and youth that the genetic psychology has brought to view shows clearly the educational problem that is before us, and at the same time reveals the chief end and aim and underlying principles of all education. The transmission of knowledge is but a small part of the work. Its great purpose is biological; it is to develop the child normally, to the greatest maturity and sanity. This needs to be said over and over again, for it is the central thought of the new education which is founded upon biology."[1]

A little further on Dr. Partridge adds an illuminating statement concerning the meaning President Hall attaches to biological education: "Biological education demands, as its first principle, that we stand out of the way of nature and allow it to have its own way with the child. It declares that the great need of the whole period of development of the child is to live out each stage, lingering in that stage as though it were to be the last. It asks that the child's growth be, for the most part, retarded rather than hastened, in order to give all the nascent stages time to fully ripen. To linger at leisure in each recapitulatory stage, so that each individual may experience all the life the race has experienced, is the ideal."[2]

We have quoted this passage at some length because the ultimate aim of education therein set forth not only conflicts with the fundamental teachings of Christianity, but because it is equally opposed to the secure findings of

[1] Partridge, Gen. Phil. Ed. New York, 1912, p. 100.
[2] *Op. cit.*, p. 115ff.

biology, for if there is any one truth that stands out more conspicuously than another in the science of embryology it is that nature bends every effort towards preventing the individual from lingering unduly or from functioning at all in any of the ancestral forms through which the race has passed and through the shadows of which the individual must proceed without lingering or halting by the way and without functioning, if he is ever to reach the adult plane. The theory put forth by the author of Genetic Philosophy of Education must, therefore, seek support elsewhere than in the biological sciences. All the knowledge that biology has accumulated concerning the development of the individual and the development of the race negatives the postulates of this school.

The ascendency of the ethical over the biological elements in man is thus stated by Thomas Huxley in his Essay on Evolution and Ethics: "Man, the animal, in fact, has worked his way to the headship of the sentient world, and has become the superb animal which he is, in virtue of his success in the struggle for existence. The conditions having been of a certain order, man's organization has adjusted itself to them better than that of his competitors in the cosmic strife. In the case of mankind, the self-assertion, the unscrupulous seizing upon all that can be grasped, the tenacious holding of all that can be kept, which constitute the essence of the struggle for existence, have answered. For his successful progress, throughout the savage state, man has been largely indebted to those qualities which he shares with the ape and the tiger; his exceptional physical organization; his cunning, his sociability, his curiosity, and his imitativeness; his ruthless and ferocious destructiveness when his anger is roused by opposition.

"But, in proportion as men have passed from anarchy to social organization, and in proportion as civilization has grown in worth, these deeply ingrained serviceable qualities have become defects. After the manner of successful persons, civilized man would gladly kick down the ladder by which he has climbed. He would be only too pleased to see 'the ape and tiger die.' But they decline to suit his convenience; and the unwelcome intrusion of these boon companions of his hot youth into the ranged existence of civil life adds pains and griefs, innumerable and immeasurably great, to those which the cosmic process necessarily brings on the mere animal. In fact, civilized man brands all these ape and tiger promptings with the name of sins; he punishes many of the acts which flow from them as crimes; and, in extreme cases, he does his best to put an end to the survival of the fittest of former days by axe and rope.

"I have said that civilized man has reached this point; the assertion is perhaps too broad and general; I had better put it that ethical man has attained thereto. The science of ethics professes to furnish us with a reasoned rule of life; to tell us what is right action and why it is so. Whatever differences of opinion may exist among experts, there is a general consensus that the ape and tiger methods of the struggle for existence are not reconcilable with sound ethical principles."[1]

From this statement of the evolution of the human race it is clear that even those who accept man's lowly origin must deny the contention that the highest aim of education is to develop in each individual in succession the ancestral phases of race history. On the contrary, man's ascent to the high plane which he now occupies is

[1] Huxley, Evo. & Eth. New York, 1894, p. 51ff.

possible only on condition that education successfully combats the development of the distinctively animal traits of his heredity. One of the aims of education must be to secure the death of the "ape and tiger." In a word, education must aim at bringing the flesh into subjection to the spirit. It must aim at bringing conduct under a reasoned rule of life which is not, and never can be, the the mere exaltation of animal instinct. The verdict of science, therefore, as summed up by so eminent a protagonist as Professor Huxley, would seem to be in entire agreement with the claims of the Christian Church, the difference being that the Professor, speaking in the name of science, stops short of a revealed rule of life.

Even those who have lost sight of man's intellectual and spiritual nature, and who regard him as a mere animal, differing from other animals only in the degree in which his brain is developed, may not seek for the ultimate end of education within the bounds of man's physical inheritance. *A fortiori* those who believe in man's high destiny as a child of God and heir to eternal bliss, and who believe that man is the possessor of an intellectual and moral nature which lifts him forever above the plane of mere animal life, must seek the ultimate aim of education in the development of man's higher nature and in the subordination to it of his animal instincts.

This does not mean that man's animal nature is to be neglected or destroyed, for man's intellect together with his social inheritance enables him to secure adjustments of his animal nature to his physical environment which are superior to anything which could be achieved by any development whatsoever of his animal instincts. This triumph of the spirit over the flesh is not to be achieved with ease or facility and were the individual left to his

own devices, he would probably not succeed to any great extent in enthroning his higher nature over his physical instincts. Indeed, the experience of the race has amply proven that the intelligence, even of the race as a whole, is insufficient for the attainment of this end without the aid of divine revelation and of divine grace.

The problem confronting educators in this respect is not different today from what it was in the days when St. Paul wrote to the Galatians these memorable words: "For you, brethren, have been called unto liberty: only make not liberty an occasion to the flesh, but by charity of the spirit serve one another. For all the law is fulfilled in one word: *Thou shalt love thy neighbor as thyself.* But if you bite and devour one another; take heed you be not consumed one of another. I say then, walk in the spirit, and you shall not fulfil the lusts of the flesh. For the flesh lusteth against the spirit: and the spirit against the flesh; for these are contrary one to another."[1]

In our endeavor to lift man's spiritual nature into control of his flesh, we should avail ourselves, as far as may be, of nature's guidance and nature's help. It is well, therefore, from the outset to remember that in the long development of animal life upon the earth, nature has ever bent her forces to the suppression of adjustments to environments which were no longer serviceable. Changes in environment constantly tended to render adjustments obsolete and either worthless or injurious to the animal.

In the recapitulation of race history revealed in the development of each animal we find numerous structures atrophied to such an extent as to render them utterly incapable of functioning. In the human infant, in like manner, we find nature constantly at work atrophying

[1] Gal. v, 13–15.

and suppressing the ape and tiger promptings which, having served a useful purpose in savage life, have ceased to be serviceable to civilized man. Education is called upon to second nature's efforts in this direction and to protect the child from experiences which would tend to reinstate and to develop the undesirable and obsolete instincts which still continue to appear, albeit in rudimentary form, in each human infant. It should be further noted that nature does not destroy the obsolete adjustment by any direct attack, but gradually removes it by substituting a better adjustment. The obsolete structure, thus being denied function, gradually atrophies and disappears.

If the educator is to follow nature's leadership, the very last thing he should do is to permit the child to "live out each stage, lingering in that stage as though it were to be the last." The last thing that education should ask is: "That the child's growth be, for the most part, retarded rather than hastened in order to give all the nascent stages time to fully ripen. To linger at leisure in each recapitulatory stage so that each individual may experience all the life the race has experienced."

From the Christian point of view it is not difficult to exclude a number of aims proposed in the current literature of the subject as the ultimate aims of education. There is no room to doubt that education should not lead man's soul into the bondage of the flesh, nor is there any room to doubt that fatal consequences must result from the indiscriminate development of the child's instincts, and from reinstating in the unfolding mind and heart the savage ways of animal nature and of primitive savage life.

By elimination, we may limit the problem before

us, but it still remains a difficult task to define in a positive way the various aims which should be pursued in the educative process, the relationship of these aims to each other, and the various means by which the ultimate aim of Christian education is to be attained. The human intellect, left to its own devices, has in the past frequently blundered in its attempt to solve the many problems involved in this task. For illustrations of this failure, we need only recall the caste system of India; the rigid reinstatement of the past which has, for so long a time characterized Chinese education; the utter subordination of the individual to the State in Sparta; or the frantic individualism which deluged France with blood in the days of the revolution as the outcome of Rousseau's cry—"Back to nature." And, passing from these extreme examples, very instructive instances of a similar failure may still be found in our midst, not only in schools that are frankly non-Christian, but in so-called Christian schools that still persist in their efforts to build up in the pupils adjustments to environmental conditions which have long since ceased to exist.

In this vitally important matter Jesus Christ did not leave His followers to wander in darkness, nor did He abandon them to the reckless theorizing and experimenting of irresponsible pedagogues. He pointed out the need of divine guidance in this matter and provided for it through revealed truth and through the ministry of His Church. The need of this guidance He proclaimed to His followers as a self-evident truth. "And He spoke also to them a similitude: can the blind lead the blind? Do not they both fall into the ditch?"[1] And again, "As the Father hath sent Me, I also send you."[2] The same thought

[1] Luke vi, 39.
[2] John xx, 21.

is echoed by St. Paul: "And how shall they preach unless they be sent, as it is written: *How beautiful are the feet of them that preach the gospel of peace, of them that bring glad tidings of good things.*"[1]

Even at the end of His ministry Jesus proclaimed that there were many truths which His followers were not then prepared to receive, but He did not leave them in doubt concerning the ultimate aim that must animate all human striving: "And calling the multitude together with his disciples, he said to them: If any man will follow Me, let him deny himself, and take up his cross, and follow Me. For whosoever will save his life shall lose it: and whosoever shall lose his life for My sake and the gospel, shall save it. For what shall it profit a man if he gain the whole world and suffer the loss of his soul."[2] To the Christian, these words of the Master are a sufficient refutation of the findings of the culture epoch theory and of the teaching of all those who would seek the end of education within the bounds of man's animal inheritance. On the other hand, no clearer positive formulation of the ultimate end of education has ever been given to man than that contained in these words of the Master: "*Thou shalt love the Lord thy God with thy whole heart, and with thy whole soul, and with thy whole mind.* This is the greatest and the first commandment. And the second is like unto this: *Thou shalt love thy neighbor as thyself.* On these two commandments dependeth the whole law and the prophets."[3]

The Church, in the faithful discharge of her divine commission, has ever held up before her children clear-cut, definite ideals of life which must give direction to the

[1] Rom. x, 15.
[2] Mark viii, 34–37.
[3] Matt. xxii, 37–39.

unceasing endeavors of all who would be saved. To help the little ones entrusted to their care to attain these ideals is the only aim which the Church has ever permitted to those who teach in her name. So much importance does the Church attach to the functioning of these ideals that she has not contented herself with their mere verbal formulation. She has ever held up concrete models for the imitation of all who strive to attain the higher levels of the spiritual life under her guidance and inspiration. The life of Jesus Christ on earth is the concrete ideal towards which all must strive. To aid her children in understanding this Model, the Church has lifted to her altars multitudes of saints, each of whom exhibits in his life and actions some trait or characteristic of the ultimate Model of perfection.

With such definite ideals, and with no less definite means for their attainment, it was, of course, to be expected that the Church in her educational system would achieve noteworthy results. These results are, in fact, the sum total of Christian civilization. The Greek who, in the pride of his intellect relegated his wife to obscurity and lifted the hetaerae to the position of honor, the Greek who felt no shame in the most unnatural practices, and who caused his own children to be sent to death when they did not happen to please his fancy, was led by the Church to embrace the sweet yoke of the Gospel, to abandon his immoral ways, to lift woman to a place of dignity by his side, to respect the individuality of the child and the right to life of the unborn babe. And the Roman was taught by her that gentleness, mercy, love and purity were forces more potent than armed legions. The wild nomadic tribes that swept down over Europe, leaving death and destruction in their wake, were tamed by her teaching

and gradually led into the ways of peace. From these crude materials the Church built up the institutions and the monuments of Christian civilization which have blessed the world in so many ways.

If the world today is drifting back towards pagan ideals and towards the practices of savage life, the cause may be found in the assumption of the control of education by human agencies that refuse to follow the ideals set up by Jesus Christ and maintained by His Church. Human intellect, in its pride, refuses the light from above and the authority from on high which had led to such triumphs by establishing for man's guidance the correct ultimate aim of the education which formed him. At the present time, outside the Church, each educational leader in the midst of darkness and confusion is seeking to determine by the light of his own unaided intelligence the ultimate aim which should control the educative process.

Translating the language of the Church into the language of modern educational philosophy, it may be stated that *the unchanging aim of Christian education is, and always has been, to put the pupil into possession of a body of truth derived from nature and from divine revelation, from the concrete work of man's hand, and from the content of human speech, in order to bring his conduct into conformity with Christian ideals and with the standards of the civilization of his day.*

To prevent misunderstandings, it may be well to examine a little more closely some of the things implied in this formulation of the ultimate aim of Christian education. At the outset, it may be well to call attention to some of the things which it does not imply.

It is quite true that Christian education aims at bringing human intelligence under the control of divine revelation

and at bringing man's animal instincts under the control of human intelligence. But in this process human intelligence is not impaired, nor are its scope and freedom lessened by the controlling truths which are imparted to it on divine authority. On the contrary, revealed truth imparts security, greater keenness and a wider range to human vision. In like manner, the subordinating of man's instincts to his intelligence does not imply the destruction or the suppression of instincts or the lessening of their importance in human life. Intelligence only removes the rigid limitation of instincts. It lifts up the substance of the instinct and makes it function more vigorously and freely on a wider plane. In each case, the higher faculty perfects the lower by lifting it to a higher plane, removing narrow limitations and changing the direction of the activity so as to conform with higher standards and to attain to more serviceable adjustments. It is for this reason that in the definition of the ultimate aim of Christian education given above, stress is laid on the fact that the food for man's conscious life must be derived from the *four sources* indicated. Revelation alone will not suffice; divine faith always presupposes human intelligence which it is designed to assist and to develop. Supernatural law always presupposes and implies natural law; hence, truths derived from nature are presupposed by the truths made known to man through revelation. In fact, the most conspicuous feature of our Lord's teaching may be found in this: that He always sought to lead His disciples into an understanding of the truths of the supernatural life through their understanding of natural truths. We are told that "All these things Jesus spoke in parables to the multitudes: and without parables He did not speak to them. That it

might be fulfilled which was spoken by the prophet saying: *I will open my mouth in parables, I will utter things hidden from the foundation of the world.*"[1] Now the basis of the parable is always natural truth which is lifted up in the conclusion of the parable to a higher plane and made the means of giving the intellect a vital grasp of that which, without the aid of a higher authority, it would be unable to reach of itself, which had remained "hidden from the foundation of the world." It is not natural truth, therefore, that is taken away from the human intellect by divine revelation, it is the limitations to the scope of human intellect that are removed or pushed out into wider fields by this divine agency. In a word, revelation removes defects not perfections from the human mind.

Our Lord, in His teachings, did not fail to make clear the fact that a similar relation should exist between instinct and human intelligence. He frequently implies the validity and value of instinct as the basis of His parable. As for example: "Jerusalem, Jerusalem, thou that killest the prophets, and stonest them that are sent unto thee, how often would I have gathered together thy children, as the hen doth gather her chickens under her wings, and thou wouldst not?"[2] Or again: "What man is there among you, of whom if his son shall ask bread, will he reach him a stone? Or if he shall ask him for a fish, will he reach him a serpent? If you then being evil, know how to give good gifts to your children: how much more will your Father Who is in heaven, give good things to them that ask Him?"[3]

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[1] Matt. xiii, 34–35.
[2] Matt. xxiii, 37.
[3] Matt. vii, 9–11.

It should be noted that in the Christian aim of education the imparting of knowledge is never the end. Knowledge must be imparted so that it may nourish the conscious life of the pupil and this is sought to the further end of securing desirable conduct. The ultimate aim, therefore, is to secure adequate adjustment of the pupil to Christian ideals of life and to the standards of the civilization of the day. "Render therefore to Caesar the things that are Caesar's: and to God the things that are God's."[1]

Perhaps the most important difference to be observed between the aim of Christian education, as set forth in these pages, and the aims of education too frequently defended in current educational philosophy is to be found in the function of the principle of authority which it implies.

Man's animal instincts, of themselves, can never lift man above the plane of mere animal nature. If his spirit is to be redeemed from the bonds of the flesh, this redemption must come to him from without and it can come to him only through authority. Furthermore, if man, the intelligent and rational animal, is to be lifted up into divine companionship, by the possession of supernatural truth, this can only be accomplished through an authority which is above the utmost limits of the powers of man's merely natural intelligence, whether we regard "intelligence" as the possession of the individual or as held in solidarity by the race. The use of authority, however, in bringing about this two-fold transformation, is essentially transitory. What is accepted on authority may, and should, in due course of time, be accepted by the intellect for its own sake. Thus, as the mind grows in

[1] Luke xx, 25.

power, authority disappears in the light of intrinsic evidence. In the progress of the individual, as in the progress of the race, this principle has never ceased to be operative. St. Augustine's phrase, "*Credo ut intelligam*" —I believe in order that I may understand—is as applicable to the man as to the child. It is as true in the natural order of truth as in the supernatural. Always faith ceases in vision and man attains to no vision which has not unfolded from a germ of faith: "We see now through a glass in a dark manner; but then face to face. Now I know in part; but then I shall know even as I am known."[1]

Man has attained the high place which he holds in the scale of animal life precisely because his offspring, from the time of its conception, is not left to find its own way, as are the offspring of the sea urchin and of other lowly forms of life, but begins its career in total dependence upon its parents and grows, little by little, toward complete independence. This drift towards independence, however, does not begin until physical development has practically reached its completion and growth has been secured in goodly measure.

In the development of its conscious life, however, the human infant begins in a many-sided dependence upon its parents and upon the people of its environment and gradually works its way from the acceptance of values on mere authority to their acceptance through experience and through the light of its own intelligence. "It is so whether it is so or not because mother says so," is a perfectly natural attitude of the infant mind. Instinct moves the child to action, but the child has no light in which to discern the actions which are most profitable and which may lead to the higher levels of life. The

[1] I Cor. xiii, 12.

selection of these experiences, if it is to be wisely made, must be determined from without and it can be determined only through the principle of authority, which is thus seen to be fundamental in the educative process, since through it alone may the child's intelligence be developed, through it alone may the flesh be brought into subjection to the spirit, through it alone may man be lifted up into conformity with the demands of the supernatural life.

The human infant, like the young of all the higher animals, begins its conscious life under the complete control of instinct. It is the purpose of education, in the widest acceptation of that term, to substitute for instinct the control of intellect and free will so as to secure action in conformity to the laws of nature and to the dictates of divine will. This general purpose must, of course, determine many of the secondary aims of education as well as the methods to be employed at every stage of the educative process.

It is impossible to build up this new control of life as a thing distinct and apart from the instincts of the infant. Vital continuity must be maintained; all the positive force of the instinct must be retained and increased daily, even when the direction of the instinct's activity should be changed and when the instinct may need to be profoundly modified in many ways. That we cannot build up within the conscious life of the child an effective control of conduct into which the vitalizing sap of instinct does not flow, cannot be too strongly insisted upon. But, on the other hand, neither can we insist too strongly upon the truth that native instincts, no matter how highly cultivated, or how fully developed, can never of themselves lead to those adjustments which lie at the foundation of civilized society. You may dig around the wild crab

apple tree and cultivate it as you will, its fruit will still be the wild crab apple. If we would have it bring forth such fruitage of apples or pears as we may desire, we must engraft upon the native stem a branch from the apple or the pear tree. Similarly, we may engraft rational control upon native instincts by leading the child, through the right use of authority, into such experiences as will secure the desired modifications of his instinctive tendencies.

In like manner, the teacher of religion must ever seek to establish vital continuity between the powers of the natural man and the supernatural virtues which he would inculcate through divine authority. This vital continuity between natural and supernatural life was constantly insisted upon by the Master: "Abide in Me and I in you. As the branch cannot bear fruit of itself, unless it abide in the vine, so neither can you, unless you abide in Me. I am the vine; you are the branches: he that abideth in Me, and I in him, the same beareth much fruit: for without Me you can do nothing."[1]

This doctrine, as was to be expected, continued to be enforced by the Apostles and by the Christian Church. Even the same metaphor was frequently retained. "Wherefore casting away all uncleanness, and abundance of naughtiness, with meekness receive the engrafted word, which is able to save your souls."[2] And "Paul standing in the midst of the Areopagus, said: Ye men of Athens, I perceive that in all things you are too superstitious. For passing by, and seeing your idols, I found an altar also, on which was written: *To the unknown God.* What therefore you worship, without knowing it, that I preach

[1] John xv, 4–5.
[2] I James i, 21.

to you."[1] Festivals and customs which the Church found deeply rooted in the hearts of the people to whom she brought the saving message of the Gospel, she retained and sanctified, making what was blind superstition in its native form serve to lead up to light and truth and grace. In laying the foundation of the child's education in transformed native instincts, we are, therefore, doing nothing more nor less than following consistently the leadership of the Church in her educational work.

For certain souls that dwell much in the contemplation of supernatural truths, it may be necessary to insist that human instincts of themselves are not evil. They lead to evil conduct only when left to themselves and when denied the direction which should be supplied to them by divine authority and by the experience and wisdom of the race. It should be noted in this connection that the less completely developed along its native line an instinct is, the more readily it may be transformed through the formation of overlying habits into the adjustment demanded by the conditions of Christian life.

At the beginning of the educative process, we find the human infant's attitude towards his parents characterized by an instinctive dependence which is at least five-fold: he depends on his parents for love, for nourishment, for protection against danger, for remedy in disaster and for the models of his imitative activity. These five instincts are a part of the child's physical inheritance; he shares them with the young of many of the higher animals. In human life, on the contrary, the educative process seeks to preserve and strengthen the vitality of these instincts by transforming them into adjustments of the highest value for the conduct of adult human life.

[1] Acts xvii, 22–23.

The changes in the five instincts of dependence, enumerated above, which Christian education seeks to achieve, are two-fold: the dependence must be lifted from dependence upon earthly parents to dependence upon the Heavenly Father, and the selfishness of the instinct must be transformed into unselfishness. The child must be taught to find his joy in loving rather than in being loved, in giving food to the hungry rather than in eating the bread of idleness, in giving protection to the weak instead of seeking it as a coward seeks safety. He must learn to look upon his fellow man as his brother and to find his joy in sharing with him his treasures, whether physical or spiritual.

The importance which Christ attached to the preservation and transformation of these five instincts of dependence, may be seen from the fundamental rôle which he assigns to them after they are thus transformed: "Thus, therefore, shall you pray: Our Father Who art in heaven, etc." He would have us count with the same certainty on our Heavenly Father's love that moves the child to turn to his parents for the same boon. And a like certainty should animate us as we petition our Heavenly Father for daily bread, or to be kept out of danger and temptation, or to be delivered from the evils that may have overtaken us. And we should strive unceasingly to respond to the Master's command "Be ye perfect as your Heavenly Father is perfect." The Lord's Prayer explicitly calls for the lifting up of our dependence upon earthly parents into dependence upon our Heavenly Father, and it calls in like manner for the transformation of each of the five instincts so that, from being purely selfish, they may become wholly unselfish and after this transformation has been wrought in them, they become

the warp of the highest spirituality that has ever been revealed to man. Hence, in the parable of the sanctions, the award is based on the functioning of these transformed instincts. "Come, ye blessed of My Father, possess you the kingdom prepared for you from the foundation of the world. For I was hungry, and you gave me to eat; I was thirsty, and you gave me to drink; I was a stranger, and you took me in: naked, and you covered me: sick, and you visited me: I was in prison, and you came to me."[1]

Christian education, therefore, aims at transforming native instincts while preserving and enlarging their powers. It aims at bringing the flesh under the control of the spirit. It draws upon the experience and the wisdom of the race, upon divine revelation and upon the power of divine grace in order that it may bring the conduct of the individual into conformity with Christian ideals and with the standards of the civilization of the day. It aims at the development of the whole man, at the preservation of unity and continuity in his conscious life; it aims at transforming man's native egoism to altruism; at developing the social side of his nature to such an extent that he may regard all men as his brothers, sharing with them the common Fatherhood of God. In one word, it aims at transforming a child of the flesh into a child of God.

While accepting the ultimate aim of Christian education as herein set forth, it is necessary, in order to attain efficiency in his work, that the teacher should attempt to formulate for himself a series of concrete and definite secondary aims which in their turn may be regarded as means to the attainment of the ultimate aim which should give final direction to all his efforts.

[1] Matt. xxv, 34–36

CHAPTER XI

PHYSICAL EDUCATION

The preservation of the child's health and the development of his physical organism must be provided for by the educative agencies which undertake to control his conduct and to shape his destiny, since his instinctive equipment is wholly inadequate to the attainment of those ends under the conditions prevailing in civilized life.

Man's instincts, while numerous, are so largely atrophied, or incomplete, that they would not suffice to sustain life even under the most primitive conditions of savagery. To the human infant, therefore, education is, under all conditions, not merely an added perfection, but an element essential to the preservation and continuance of life. This truth was pointed out long since by Professor Fiske[1] and it has been accepted in current educational literature.

Physical heredity renders man's physical and intellectual development possible, but of itself it is not sufficient to sustain either. It demands, as its complement, social heredity, which reaches the individual only through education. Moreover, the further man departs from savage ways, the further he enters into the complexities of civilized life, the less adequate becomes his instinctive equipment, and the more necessary to him is that guidance which comes to him through the channels of authority from the garnered wisdom of the race.

It is not the function of education to search man's past in order to recover therefrom the pattern of life and conduct which was lost by his atrophying instincts. On the contrary, the whole weight of evidence from biological

[1] Cosmic Phil., ii, 342, 369.

science goes to show that man's instincts were atrophied precisely because they ceased to be effective and that they were gradually replaced by something better. His growing intelligence enabled primitive man to substitute habits formed in the light of individual experience and of the experience of the race for instinctive determinations of conduct, which were designed by nature to meet the conditions of a relatively static environment.

As man congregates in cities and builds up the institutions of civilized life, he modifies his environment so profoundly that not only native instincts cease to be serviceable in the control of his conduct, but individual experience becomes increasingly inadequate, and, if he is to survive, he must learn to control his conduct, even in those matters which concern his health and his physical development, by a larger wisdom and a clearer light than that which arises from individual experience. He must accept on authority much that he will not even be able to verify for himself if he is to preserve his own health and avoid endangering the health of others with whom he is associated.

It is, of course, the business of education to lead the child into an understanding of the laws of health, employing to the best advantage the child's individual experience, but it is also the business of education to teach the child to obey the laws and regulations which are promulgated for the preservation of individual and of public health, whether the individual is moved thereto by an adequate understanding of the scientific data back of these laws, or not.

The contrast here involved is not only that between the conditions of animal life and the conditions of human life, but between the conditions of primitive human life

and the conditions that surround civilized man. Among primitive peoples we find instincts supplemented by habits which are formed in the young through rigid customs handed down from generation to generation. These primitive customs are sometimes as difficult to replace or to modify as the instincts of the individual. As man passes into a civilized mode of life, these customs, no less than native instincts, must be modified or replaced by habits better suited to further social ends. Many of these habits are at the same time calculated to preserve health and to secure individual development.

"Thus the habits of correct posture, graceful carriage, exercise, cleanliness, moderation, are ultimately hygienic habits, and the ideals through which they are generalized are hygienic ideals,—beauty, grace, health, chastity, temperance, love of outdoor life. These hygienic habits and ideals might be called the balance wheels of civilization; it is through their operation that man has so far escaped annihilation at the hands of the very agencies that have lifted him up."[1]

Education, in the sense in which we have been using the term, is much wider in its implications than the activities of the schoolroom. In this wider sense, all life is an educative process, but learning therein is incidental rather than intentional. To teach, however, is the express purpose of the school, and experience is there used primarily for its teaching power. In this same sense the home is the first school. There the infant is taught, and there the basis should be laid of those physical habits of cleanliness, posture, exercise, and moderation. The Church is also engaged in teaching these things as a part of its mission and in using the experiences of life to bring home to man

[1] Bagley, Education Process, New York, 1906, p. 346.

lessons of a higher wisdom. But these agencies do not remove from the school the serious and fundamental obligation of continuing and perfecting the child's physical education.

This truth is coming to be recognized more clearly day by day. "There is no sterner duty laid upon the teacher," says Dr. Bagley, "than the development of these habits and ideals. A large public school is a fertile ground for implanting the seeds of disease and vice. The mind of the child at any time after the eighth year is predisposed to impulses that are vulgar and degrading. Some of these reactions may be 'natural' enough: they are not always to be looked upon as abnormalities or perversions; but under the conditions of modern life they are none the less disastrous, and it is precisely at this point that some form of education or external guidance becomes essential to the salvation of the race. If the dictum, 'Follow nature,' is ever fallacious, it certainly is here, for here nature is working at cross purposes, pitting instincts and impulses so evenly against one another that the composition of forces, if left to the operation of natural law, could hardly fail to equal zero in practically every case.

"In dealing with children between the ages of eight and twelve there is little room for freedom or liberty. Ceaseless vigilance is here the price of success, and this vigilance must extend to every nook and cranny of the child's nature. Uncleanliness of all sorts grows with the growth. Filth breeds filth, both mentally and materially. The germs must be nipped in the bud if infection is to be prevented. The general treatment must be aseptic, the specific treatment antiseptic. . . . . .

"In dealing with adolescence, . . . specific methods must be employed, differing radically from those used

in the pre-adolescent period. Arbitrary rulings and summary punishments must give place to reason; and the hygienic habits that have been formed largely by mechanical processes in the earlier years must now be generalized and justified on the basis of ideals."[1]

Dr. Bagley is taking full account of the net results of psychological investigation and of the every-day experience of the schoolroom when he insists, as he does here, that it is the business of the school to form many habits in the young which are essential for the well-being of physical life, and which not only fail to derive their impulse and their direction from inherited instincts, but which, in their formation, demand a wider knowledge and a clearer insight into the uses of life than is possible to the inexperienced child in the pre-adolescent period. It is the function of authority to guide the child in the formation of these habits no less than in the formation of habits that pertain to his higher nature. Nor can we suddenly dismiss authority at the advent of puberty. Indeed, we should appeal to the child's intelligence and to his experience from his earliest years, but this appeal at every stage of the process must be reinforced by authority.

In adolescence, it is true, the individual comes strongly into the foreground. Nature is here preparing him for independence, and the great uprush of emotion and passion must be taken into account by the school. But after every concession is made that should be made to the growing independence of youth, it is still a fact abundantly proven by every-day experience that unless the youth is accustomed to act under authority and to restrain and govern his impulses and his passions in view of an objective law whose validity his reason accepts, there is

[1] *Op. cit.*, p. 346 ff.

little likelihood that he will be preserved and grow into worthy citizenship. The weakening of authority over our young people and the lessening of its effect upon their conduct is responsible for a large portion of the disease, the vice, and the misery of modern life which trace their immediate source to perverted sex instinct.

In the functioning of authority in forming habits necessary for the physical well-being of the individual, we have an illustration of race life controlling and uplifting individual life. This is, in fact, the foundation of man's superiority over his lowlier fellow creatures. The experience of the race is brought into prominence in man's education. It pushes aside not only the individual's instincts which are wholly inadequate, but it sets aside with almost equal vigor individual experience.

The great fundamental habits on which the whole superstructure of individual life rests must, in man's case at least, be formed not in the meager light of the individual's restricted experience, but in the light of the experience of the race. This is only another way of saying that the child must be taught to act in accordance with the dictates of authority and then be led to discover the reasonableness and justification of the authority.

When we pass from the uninstructed child to the opposite frontiers of human life, we find this principle still operative. St. Paul speaks of it as "faith ceasing in vision," and St. Augustine embodies it in his memorable phrase: "*Credo ut intelligam*"—I believe in order that I may understand—and the Church has ever based her moral precepts on the authority of God.

In the absence of divine authority as an available resource, we come upon the most serious aspect of the educational work undertaken by our public school system.

When the authority of God is banished from the field, the child is likely to find nothing but brute force or the will of the majority as the foundation of the authority which seeks to control his actions. Under these circumstances it is not surprising that he lacks reverence for authority and seeks ways to escape its exactions.

During the first five or six years of the child's life, the home undertakes to make the necessary adjustments. The child's instincts, rudimentary as they are, cry out for simple food, for sunlight and air and the free movements of outdoor life. The home must accustom him to cooked foods, to the drinking of warm liquids, to the use of artificial shelter and protection, to the necessity of concentrating his energy and of constantly inhibiting normal impulses. In these things the school must play its part, but the beginning must be made in the home and the home should cooperate with the school to the attainment of these ends throughout the whole educative process.

The adjustments called for are difficult and will tax the resources of all available educative agencies. "The very virtues of civilization," says Dr. Bagley, "impose upon everyone who lives the social life the paradoxical obligation to break nature's laws. How to get the most out of life with the least suffering, how to do the best work with the least drain, how to be human and civilized and still be a healthy animal, are problems that can only approximate solution through compromise. When the best life entails no physical suffering, when the best work can be done without danger of nervous breakdown, when civilization and culture fail to demand some violation of primitive laws, man will have developed into a being that will have little bodily resemblance to his present self."[1]

[1] Bagley, *op. cit.*, p. 336.

From this statement of the case, which it will be admitted is fairly accurate, the difficulty of the task undertaken by the school must be apparent. The unavoidable conditions of school life add still further to the difficulty. The child is accustomed at home to a freer life and in the simple industrial homes of the past generation he was in close touch with nature, where he found abundant healthful exercise that, if not always agreeable, was at least useful. His share in the labors of the home group constituted in many respects a valuable transition from primitive to civilized life, and it formed a basic portion of the educative process. In our present economic conditions the home has been impoverished for the child, and the many-sided training which he received there must now be given in the school, if it is to be given at all.

Whatever tends to lessen the violence of the transition which the child's physical life must undergo in passing from the home to the school should be welcomed. Children in rural schools are provided for in this respect. The children's gardens, now being developed in many of our cities in connection with the public schools, should prove helpful, not only to the physical life of the children, but in laying the foundation through sensory-motor training of the children's future mental and moral development, and they should prove particularly serviceable in connection with manual training and vocational education.

For the best results in childhood days, nature calls for play rather than for work. The outdoor play of children tends to develop the larger and freer bodily movements. It enlarges the lungs; it strengthens the heart; it promotes circulation; it gives grace and suppleness to the figure; it provides varied activities which flow from native well-springs of interest; and it thus lays the foundation

for finer adjustments and for a higher development of the whole being; and above all it tends to put the child in a condition to sustain some of the inevitable strains which he will meet in the schoolroom. The work begun in the play of childhood should be completed by the games and athletic sports which find legitimate place in the latter portion of the educative process not only as means of perfecting physical development but as valuable means of forming character and developing necessary social qualities.

Play should not remain outside the school, at least where little children are concerned. Froebel through his kindergarten and Montessori through her House of Childhood have helped to bring home to us this truth. We may not find either of these methods available in our primary classrooms but something of their spirit should enter into the work and help to relieve the children from rigid attitudes and long periods of quiet.

We are slowly learning, through the psychology of childhood, that a child is capable of learning little except through his actions. Hence, the ideal primary room is a scene of busy activity instead of a place where rows of silent little children sit for long periods poring over their A B C's or memorizing their multiplication table. The sand table, cutting and folding of paper, modeling in clay, drawing, painting in water colors, singing, and above all, constant dramatization of every situation studied—all these things are tending to bring our primary classroom nearer to the children and to render it more effective as an educational agency in supplying the place of the industrial home of the past.

To meet the conditions of civilized life, it is necessary that the child should preserve and develop his health and

strength, but it is also necessary that he should adjust his physical organism to the strains that will be imposed upon it, and this adjustment must come gradually. The school must begin the task. It will not do, therefore, simply to guide the child in the indulgence of his native impulses and to protect him from all that is wearing and that makes demands on his physical life. In the school the child must learn the finer adjustments of eye and muscle. The eye is not constructed to endure the strain occasioned by the accurate scrutiny of fine details at short range during long periods at a stretch. The school, through properly graded work, must develop the eye and its function so as to meet these demands effectively. In the work of the school there arise unavoidable demands for active attention during a considerable portion of each school day. This in turn implies the conquest of impulse, frequent inhibitions, and large expenditures of nerve energy. These demands the school should face squarely and by proper gradation of exercise and proper methods prepare the child to meet the demands of life which are not unlike those enumerated for the school.

The easiest solution of many of the difficulties presented in the school is to be found in a ready yielding to the child's humors and tendencies. Permit him to follow his bent without interference—we are told. Yield wholly to nature. Such a procedure, however, constitutes a practical abandonment of the essential work of education. Whether or not such a procedure is to be permitted in a kindergarten or a Montessori House of Childhood, it is clearly out of place in the elementary school. To permit the child to follow his own impulses without restraint, to follow his own tendencies and ideas without any guidance from authority, to allow him to pass through the

plastic period of life without having adjusted himself to objective standards of authority, and without having acquired habits of obedience to the laws which regulate human conduct in civilized society constitutes a betrayal of the trust reposed in the school.

The first task which the school is called upon to perform is to preserve the child's health, and to secure his normal physical development while adjusting his conduct to the standards of the civilization of the day. How may these divergent aims be reconciled? Much has been done during the past few decades towards the solution of this problem, but much still remains to be achieved. The advance that has been made lies chiefly in the first part of the problem, viz, the preservation of the child's health and the securing of his physical development. Much still remains to be done in the direction of adjusting his conduct to the requirements of civilized life.

Owing to the great advance of medical science during the last few decades, many of the old time dangers to health have been removed from our schools. To prevent the spread of contagious disease, the common drinking cup has been banished and the drinking fountain installed in its place. Vaccination and quarantine are promptly resorted to whenever occasion demands. The germ-laden dust is removed from the school by vacuum cleaners instead of being redistributed over desks and furniture by the janitor's broom. Such dangerous and uncleanly habits as expectoration are prohibited. War is being waged on the fly and the mosquito. Needless strain on the eyes is being removed by the proper lighting of the classrooms and the proper printing of text-books, and a supply of pure air is procured through proper ventilation, Efforts are made to maintain the proper temperature.

Strain upon the nerves of the children, as well as danger to their health, has been mitigated by the banishment of the unsanitary slate with its squeaking pencil. Furniture is constructed to meet the needs of the children and to secure proper posture. Periods of concentrated attention are shortened and interspersed with periods of outdoor play and recreation which is sometimes being wisely used for the development, not only of the child's physical organism, but of his moral nature.

The schools have not remained content with removing the causes which menace the child's health. Persistent efforts have been made to remedy native defects. The children's eyes are examined and when found defective they are fitted with glasses. Adenoids are removed to permit of proper breathing. Where the children exhibit weak lungs or a tubercular tendency, open air schools are being provided. The children are taught sanitation of the mouth and proper care of their bodies.

Finally, the nature of the tasks assigned to children in the school are undergoing profound alteration with a view to meeting the physical and mental needs of the children. Interest is appealed to more extensively than heretofore, and the strain of voluntary attention is lessened. The needs of retarded pupils are being met by more systematic training of the senses and the muscles. The demands of the child's emotional nature are leading to the development of the esthetic sense, in the decoration of the schoolroom, in the illustration and printing of the textbooks and in the teaching of drawing, painting and music. All this is as it should be, but it is needful that we should not forget that man is a rational animal and that these two aspects of his being unfold in conjunction with each other and not separately. Physical education must be

undertaken by the school, but from the very beginning of the educative process it must be remembered that organic development is also the basis of mental development. In all that is done for the child, consideration must be given both to his mental and moral nature as well as to his physical life. The preserving of the proper balance here is not the least difficult of the tasks which are so lightly assigned to the teacher.

CHAPTER XII

BALANCES IN DEVELOPMENT

According to the teaching of St. Thomas Aquinas, the soul and body unite in man to form one substance, one nature, one source of action. From this point of view it is not my soul that thinks; it is not my feet that walk; it is I who think and I who walk.

The view which makes the body a mere instrument of the soul was not accepted by St. Thomas and it is not prevalent among Catholic philosophers. Pious exaggerations which refer to the body as the prison-house of the soul should not be regarded as sober philosophy and need not be taken into account in the philosophy that concerns itself with the educative process.

It is true that the immortality of the soul is essential to the Catholic's belief in a hereafter but we have little means of knowing the nature or operations of the soul after its separation from the body. St. Thomas found reason for believing that it is so incomplete as to be unable to acquire new truths or to come in contact with the physical world except by miracle until it shall be again united with the body.

Analogies to St. Thomas' view of the relation of soul to body are not difficult to find. Oxygen and hydrogen unite to form water, but water exhibits none of the characteristic qualities or actions of either hydrogen or oxygen. We are not dealing in the school with the souls of children nor are we dealing with their bodies. The schoolroom is neither a morgue nor a limbo for disembodied spirits. It is a place where we are confronted

with living, moving children; with beings possessed of souls and bodies, indeed, but possessing these two elements of their nature in a solidarity and a unity which can be severed only by death. Whatever divergency may exist in the views of psychologists and philosophers concerning the nature of spirit and the nature of matter, there is practical unanimity among them in the belief that in the present life of man, soul and body are inseparably united and must be dealt with as a unit presenting divergent aspects.

The processes of physical development and of mental development should not be confounded. Physical development in the human being has practically run its course during embryonic life and before the advent of consciousness. It is only the latest stages of physical development that are concomitant with mental development. Moreover, the process of mental development exhibits many striking differences from that of physical development, but however widely these two processes may differ from each other, there is no question of the fact that mental development in the child depends upon and is, to a certain extent, controlled by his physical development.

The close interdependence of the phenomena of mental and physical life is universally recognized. A diminution of the volume of blood in the brain, or an increase of pressure on the brain, suspends consciousness. A lesion in one part of the brain results in paralysis of a definite set of muscles; lesion in another part paralyzes sensation in a given area; the rupture of a blood vessel in the convolution of Brocca renders speech impossible; disintegration of the cortex in a portion of the temporal lobe obliterates all memory of sound, etc.

Mental development rests on brain development and

is, in a measure, determined by it. With the rise of intelligence in the animal series there is found a corresponding increase in the volume and complexity of the brain. Indeed, all the facts in the case point to cerebral development as the indispensable condition and the determining factor in mental development. Whether mental development lags behind brain development or not, it is certain that it cannot precede it.

One of the functions of the brain is to supply the basis and the organs for mental life, but this is only one of its functions and apparently one of its latest functions when the matter is viewed from a phylogenetic standpoint. The cerebrum is the dominant portion of the cerebro spinal system in man and mammals and as such it continues to minister to all the needs of the growing organism. It controls the quality and quantity of the various secretions; it regulates the temperature of the body; it governs the respiration; it determines the heart rate, the blood pressure and the distribution of the blood supply; it controls the manufacture of the various enzymes, the digestion of food and the elimination of waste products, and it presides over the nutrition and growth of all parts of the body. Receiving through its afferent nerves the results of the play of sensory stimuli from the end organs of sense, the brain determines the appropriate reactions of the organism so as to avoid danger and to pursue the things that are necessary for life.

Conscious phenomena are associated in man, at least, only with nerve currents in the cerebral cortex that rise above a definite tension. Nerve currents of low tension suffice for all the purposes of organic life: they suffice for the building of bone and muscle and nerve no less than for the control of the ordinary functions of the

organism. Mental life, on the contrary, demands nerve currents of considerable tension in the cerebral cortex for even the production of those diffuse conscious states which may be spoken of as the lateral field of consciousness in contradistinction to the area of high tension which always underlies effort and concentrated attention. It should be observed, moreover, that the mapping out of new paths in the cerebral cortex and the building up of new aggregates in which mental development consists, seldom if ever occur except under the play of high tension nerve currents. Mental development, therefore, may rightly be said to demand high tension nerve currents, whereas the needs of organic development are ministered to effectively by low tension currents.

When left without control, it seldom happens that nature maintains a proper balance between the high and the low tension currents or between mental and physical development with which these currents are respectively associated. Moreover, it will be found that the balance frequently tends to swing from extreme to extreme resulting in the puzzling phenomena of precociousness and retardation and in their curious reversals.

The precocious child is usually undersized, whereas periods of rapid physical growth are generally characterized by low nerve tension and retarded mental development. Children in this latter condition are frequently classified by the incompetent teacher as dullards. If the children in any fourth or fifth grade room be arranged according to size and physical development, they will be found to be fairly well classified in the inverse order of their mental development.

A series of concentric circles described around the center of growth (Fig. 1) may be taken to represent the condi-

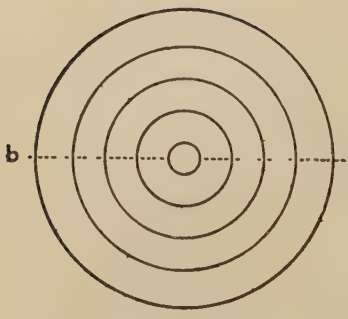

FIG. 1.—Condition of balanced physical and mental development.
oa axis of mental development.
ob axis of mental development.

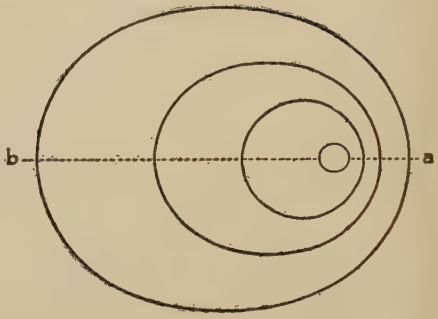

FIG. 2. — Condition of the overgrown dullard.
oa axis of mental development.
ob axis of physical development.

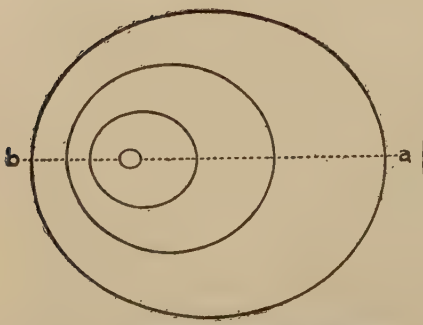

FIG. 3.—Condition of the precocious.
oa axis of mental development.
ob axis of physical development.

FIG. 4.—Illustrating balances between mental growth and mental development.

tion in a normal child in whom physical and mental development are maintained in a balanced condition, whereas the unbalanced condition found in the dullard and in the precocious child may be aptly represented by a series of elipses in which the respective centers of growth occupy opposite foci. (Figs. 2 and 3.)

Perfect balance between physical and mental development as the child passes on from infancy to maturity is an ideal condition but it is a condition seldom or never realized. Most children in their physical and mental development depart more or less from balance. Those who depart most from this norm or balance in either direction are in greatest danger of being permanently injured by being subjected to the ordinary routine of the school and by coming under the control of teachers who have little understanding of their condition and who are consequently unable to minister to their peculiar needs.

There is a growing consciousness of the need of doing whatever may be possible in the school to preserve the balance between physical and mental development. It is at last beginning to be understood that the undersized precocious child should be kept from over mental stimulation, hence he must not be allowed to enter into competition with others. Collateral work of a quieting nature is indicated with emphasis on physical development, play and outdoor exercise, whereas, the converse of this treatment is demanded by the overgrown retarded pupil. He, too, must be kept from competitive work, since such competition for him is likely to result in failure and discouragement. Great care must be exercised not to assign these pupils tasks that are above their unaided effort since this is likely to result in discouragement or in parasitism or in both. To awaken and stimulate the

mental life of these children, the endeavor should be made to find something in which they succeed and use this as a basis from which to proceed in awakening interest and stimulating endeavor.

This unbalanced condition is likely to reverse itself automatically in due time. If the precocious child is saved from permanent injury to health, the time is likely to come when physical development will set in and proceed rapidly. During the few years occupied by this phase there is grave danger of discouragement. The child seems to the teacher to be lazy and he seems to himself to be dull. The contrast with his former interest and success discourages him and if left to himself he is likely to cease all further efforts along lines of mental development. This undesirable result, however, may be avoided in large measure by explaining to the pupil, who is usually of an age to understand, the physiological phenomena in question and by pointing out the fact that his present undesirable condition is likely to terminate in a few years and be followed by a period of facile mental achievement.

The aim of the teacher in dealing with these unbalanced children should be, as far as possible, to restore balance by protecting the precocious pupil from over stimulation and by encouraging and stimulating the overgrown dull pupil. Where success in this endeavor is questionable, every available precaution must be taken to protect the children against the dangers to which they are exposed.

Next in importance for the child's future to the preservation of balance between physical and mental development is the preservation of the proper relationship or proper balance between mental growth and mental development.

In mental development, as in all other kinds of development, each subsequent phase is reached through a reconstruction of the previous phase. In this reconstruction some features of the previous phase disappear never to return, others are retained with little or no alteration, while still other features that were only implicitly contained in the previous phase are brought out and rendered functional. As a consequence of this progressive transformation, few features of early developmental phases will be found in the later phases of any long developmental series. The early phases are, therefore, conditional; their sole function is performed when the individual is carried forward into the subsequent phase.

This law of transformation, which governs mental development as rigidly as it governs organic development, carries with it certain important implications for the guidance of the teacher. First among these is the recognition of the fact that all unnecessary growth serves to impede development. When, therefore, mental development is the desideratum, great care should be exercised not to load the mind with anything that may not prove serviceable in bringing about the mental transformation which should be taking place. Knowledge that may be considered useful either for a later phase of mental development, or as an instrument for the conquest of environment, has no legitimate place in the early developmental periods of the child's life. In this respect organic development furnishes us with striking illustrations. When development is at its maximum in the early embryonic stages, growth is at its minimum. The mammalian embryo is at one stage of its development provided with gill folds and with a circulatory system designed for aquatic respiration but the business of these

rudimentary structures is not respiration but to carry the organism forward to the lung stage. Similarly, in the mental life of the child the business of the growing organs of knowledge is not to conquer an environment or wrest the truths of nature from their hiding place but to bring about the further development of the child mind. Growth in knowledge is not desirable until the mind has reached a stage of development wherein it can use knowledge for the ends and aims of adult life, hence the natural dependence of the child upon authority instead of upon evidence for the guidance of his mental processes and of his conduct; hence the possibility and the need of education.

When this truth is lost sight of in the school and the child mind is loaded with information that seems calculated to be of service in adult life, or when the child is asked to function with his immature mind as if he were not dependent by nature upon the group into which he was born, a grievous injury is done to him through which he is prevented from ever reaching the high plane of development which would be his were unnecessary growth restrained until the proper time. Those who bend the plastic years of the child to the burden of memory loads of encyclopedic knowledge, sin in this way against the child's intellectual nature, and those who would impart to the immature child a knowledge of sex phenomena that belongs to men and women of mature years, sin in a similar manner against the child's emotional and moral nature. In the doll play of the little girl we have the early developmental phases of future motherhood, but this does not justify us in replacing the doll instinct by a scientific account of the mechanism and functions of reproduction. The rule should be: Give the child only that which is necessary and helpful to the phase of development through which he is passing.

Some of the broad relationships between mental development and mental growth may be illustrated by a diagram such as that given in Fig. 4. The inner circle is here used to indicate the thirteenth or fourteenth year and the outer circle represents the culmination of the developmental period which occurs in the twenty-eighth or thirtieth year. The pre-adolescent period is essentially a developmental period in the child's mental life. His views and outlook on life in all directions are undergoing constant transformation. The culmination of this period corresponds roughly with the termination of the child's sojourn in the elementary school. It is true that during adolescence deep-seated organic changes occur which are accompanied by profound metamorphoses of emotional life but at the same time that this development is taking place permanent growth along several lines is also setting in. The youth is beginning to take a man's view of many things and a man's attitude towards the world. Each of the five rays of the star may be taken to represent an axis of development along the line of a corresponding social inheritance. The base of each ray broadens out until it embraces the entire development of the child's pre-adolescent life and it narrows to a point as it reaches the culmination of the developmental series. The areas lying between the star rays and the outer circle represent areas of mental growth which begin with the advent of puberty and widen rapidly until they represent the whole of mental life at maturity towards the end of the twenties.

In this diagram both growth and development are represented as proceeding from the common center of the star and the circles. Development engrosses the entire field up to the completion of the period of elementary education. From this time onward the star rays represent a balanced development along the five lines of

our social inheritance. The sectors lying outside the star rays and within the outer circle represent the accumulation of useful information and instrumental knowledge which represent vocational education or the fitting of the individual for the duties and responsibilities of adult life.

Everything in the developmental area is transitional; the powers are plastic and information is being used not for the conquest of outer environment but for the transformation of self; the areas of growth represent permanent acquisitions which are dominated by the adult point of view and are designed to serve the purposes of adjusting the individual to his various environments.

The child cannot see things in a man's way but he does need and can use a man's truths. It is a mistake to suppose that a child is interested only in the trivial; he hungers and thirsts for the greatest truths, but he needs them and he demands them in a form suited to his stage of development.

It will be conceded by every teacher, I believe, that a child of eight years has not attained to a mental development such as would enable him to understand the first chapter of the Gospel according to St. John. The sublime phrases: "In the beginning was the Word, and the Word was with God, and the Word was God. The same was in the beginning with God. All things were made by Him: And without Him was made nothing that was made" have no meaning for the child, but the child is hungry for God and for the doctrine of creation and of Divine Sonship. The limitations of his mind demand that this truth be cast for him in other and appropriate form and when this is done there are few things that interest him so deeply or that prove more wholesome to his developing conscious life.

It is with this very truth that the First Book of the Catholic Education Series of primary text-books begins and the reader is referred there for a presentation of these sublime truths in a form that captivates the minds of children of six years. For the results of this truth properly presented we must again refer the reader to the children who are passing through the schools where this method is being employed.

Poets, the real teachers of childhood, have often essayed this same task and with marked success. A good illustration of this mode of presenting the truth may be found in George MacDonald's Baby Rhyme:

Where did you come from, baby dear?
Out of the everywhere into the here.

Where did you get your eyes of blue?
Out of the sky as I came through.

What makes the light in them sparkle and spin?
Some of the starry spikes left in.

Where did you get that little tear?
I found it waiting when I got here.

What makes your forehead so smooth and high?
A soft hand stroked it as I went by.

What makes your cheek like a warm, white rose?
Something better than anyone knows.

Whence that three cornered smile of bliss?
Three angels gave me at once a kiss.

Where did you get that pearly ear?
God spoke and it came out to hear.

Where did you get those arms and hands?
Love made itself into hooks and bands.

Feet, whence did you come, you darling things?
From the same box as the cherubs wings.

How did they all just come to be you?
God thought about me and so I grew.

How did you come to us, you dear?
God thought about you, and so I am here.

The child of eight will delight in these rhymes and his delight will be found to spring from the content no less than from the form. The content appeals to his imagination and sows in his young mind germs of great thoughts that will develop with his years until he is finally enabled to understand as far as man so circumstanced may understand the sublime mysteries concerning which the evangelist speaks.

In examining the results of such a lesson as this it will be found that the child will learn that God has made him and that his eye and ear and all the rest of him somehow came from God's thought. It is true that he fails utterly to comprehend how God's thought is realized in creation but he does reach the idea that God is the Creator and that secondary agents are employed to perfect and continue the original result of the creative act. It is true that he fails utterly to comprehend the doctrine of the Logos. He does not understand in the least how God's thought is realized in creation, but it is equally true that he has no desire and no need for such knowledge. In his state of mental development his dependence is overwhelmingly on authority instead of on internal evidence. Assertion is all he needs. He is no more conscious of the need of adjusting his mind to the ultimate problems of human thought, such as those involved in the process of creation,

than an embryo in the first stages of development has need of adjusting itself to the outer world in which adults carry on the struggle for existence.

To attempt to give the young child the adult's point of view is to ignore the need and capacity of his mind. To attempt, on the other hand, to secure a large growth around the central core of truth which the child mind is capable of receiving is no less a violation of the laws that govern mental development. In the Baby Rhyme the central truth "God thought about me and so I grew," will remain while the concrete setting will, in the course of time, be dissolved out in the light of the child's growing intelligence. To perpetuate the concrete setting such as that the blue of his eyes came from the sky, that tears were added from the outside, or that his ears came out to hear, as literal truths would be to defeat the child's mental development. It would, of course, be absurd at this stage of the child's mental development to make him wrestle with the pigment cells of the iris and with the structure and function of the lachrymal glands or with the labyrinth of the internal ear, but it would be no less absurd to have the child carry the literal statements of the rhyme up into adult life and there use them as a refutation of the truths of physiology.

Scaffolding of this sort is quite necessary to the developing mind, but it is just as necessary that the scaffolding should be removed in due time. The amnion and the allantois are necessary to the development of the mammalian embryo but they must both be removed before the young animal begins to breathe and to live an independent life in the outer world. Mental scaffolding carried up into adult life by the individual or carried forward by a people from the childhood of the race impedes real progress.

Our Saviour pleaded with the Jews to discard such race scaffolding: "Amen, I say to you: Whosoever shall not receive the kingdom of God as a child, shall not enter into it."[1] Unless they discarded the literal meaning of the messages which came to them through type and figure and prophecy, and the literal exactions of their human customs, and opened their minds to the inward kernel of truth, they could not enter the kingdom of God. St. Paul repeatedly dwells on this same thought: "Who also hath made us fit ministers of the new testament, not in the letter, but in the spirit. For the letter killeth but the spirit quickeneth."[2] And again: "For we know in part and we prophesy in part but when that which is perfect is come, that which is in part shall be done away. When I was a child, I spoke as a child, I understood as a child, I thought as a child. But, when I became a man, I put away the things of a child."[3]

Clearly, the thing of predominant importance in the early days of childhood is development and any truth that fails to minister to this development should be withheld from the child. To give it out of due time would not aid the child's progress but, on the contrary, would work injury and cause retardation. The principle involved here finds perhaps its most conspicuous illustration in the types and prophecies of the Old Testament which gradually prepared the Chosen People for the coming of the Messiah. This phylogenetic aspect of the educative process was parallelled by our Lord in His teaching of the individuals who gathered around Him on the hillsides of

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[1] Luke xviii, 17.
[2] 2 Cor. iii, 6.
[3] 1 Cor. xiii, 9-13.

Judea. He prepared them step by step, by miracle and parable, and withheld the truth in its literal form until they were ready to receive it. Witness His teaching as recorded in the sixth chapter of St. John: He multiplied the loaves and fishes to feed the hungry multitude and when, on the following day, they sought Him on the other side of the Sea of Genesareth He called up the memory of the miracle of the previous day and the memory of the types of the Old Testament, "Your fathers did eat manna in the desert," and used these types as a means of bringing home to His audience the need and the function of divine revelation and of the Blessed Sacrament. And when at the end He was about to leave His apostles and disciples, He called up the same principle in His memorable saying: "I have many things to say to you but you cannot bear them now."

The parable usually ends in a clear formulation of truth such as the statement in which the truth embodied in the parable of the lilies is declared: "Seek ye therefore first the kingdom of God and His justice and all these things shall be added unto you." And so, in due time, mental development must give place in the child's life to mental growth. Truth is ministered at first as a means of promoting development; later on it is imparted for its own sake and for the uses that may be made of it to forward the ends and aims of life in the conquest of environment. As development ceases in any direction of the mind's unfolding, vigorous and rapid growth should set in, for although the adolescent is still far from comprehending any truth in its fulness, he does not differ in this respect from the adult. The limitation here met with is not the limitation of the undeveloped mind but the limitation of the finite mind that is ever incapable of an exhaustive

knowledge of any truth. The philosopher agrees with the poet in this sentiment:

> "Little flower in the crannied wall,
> And if I knew thee, root and all and all in all,
> I would know what God and man is."

It is therefore the business of the teacher and of all who have part in determining the content of the curriculum to preserve as far as may be in the child's unfolding conscious life a proper balance between growth and development. Unfortunately circumstances frequently render it necessary to subordinate the possibilities of the child's mental life to the necessities of physical life and instead of promoting development to its highest possible level it becomes necessary to foreshorten the process, to arrest the child on a lower plane of development and provide him prematurely with the means of self-support. While such a compromise may not infrequently be necessary, it should never be allowed to dim our ideal nor to lessen our striving for its attainment.

Balance in the sense of symmetry is scarcely less necessary to the health and well-being of the child's unfolding mental life than the two balances discussed above.

The tree that grows in the trade winds is bent and dwarfed with its branches growing on one side of the stem. Wherever the living form is deprived of symmetry its health and efficiency are impaired in a proportionate degree. Hence we find life everywhere struggling with environment to maintain symmetry. In all organic development symmetry is secured by the life principle which controls the processes of growth and development in the organism. Symmetry in the conscious development

of animal life is similarly dependent upon forces resident in the individual and known under the name of instincts, but in the human infant the instincts of animal nature are found in a rudimentary or atrophied condition, hence symmetry in the child's mental development must be secured, if at all, through the conscious efforts of parents and teachers. Even in the child's physical development the perfection of symmetry depends in no small degree upon education.

The child may, indeed, inherit partially atrophied instincts or physical predispositions for certain lines of mental development, nevertheless he must be taught even the rudiments of the conscious experience of the race. The school is the institution devised by society to lead the child into the rich inheritance accumulated for him by the conscious efforts of man throughout all the ages of the past and it is to this same agency that we must look for the preservation of symmetry in his unfolding life.

In the elementary school period, in particular, every reasonable effort should be made to awaken the child's interest and to develop his powers proportionately along the divergent lines of his social inheritance. This was indicated in the diagram shown in Fig. 4, discussed in a preceding page, by the inner circle which marked the advent of puberty. The time will come, however, when the individual must set his face in a definite direction and begin his preparations for a definite life-work. From this time forward an equal development along the lines of the five-fold spiritual inheritance is scarcely practicable.

While it is true that the advent of puberty is too early to begin definite specialization for a vocation if the highest all-round development is to be secured, or if sanity and

power are to be achieved in the chosen field, nevertheless it is not too early for the pupil to indicate the direction of his future life work by the predominance of his interests and the unbalanced development of his powers. From this time forward the main effort should be to develop productivity in one direction and receptivity along all the other axes of development. It is not feasible to aim at productivity in more than one line but for good work here the mind must be in condition to benefit by the work done in other fields and by each advance made by remote groups of workers. An equal development in all directions is scarcely a feasible ideal for secondary and higher education. A man who has equal power in many directions is likely to have no more than moderate power in any direction.

CHAPTER XIII

EDUCATION FOR ECONOMIC EFFICIENCY

Man, both in his physical and in his conscious life, begins his individual existence in total dependence upon others and must, through the processes of growth and development, with the assistance and under the control of educative agencies, achieve not only individual independence but efficiency in returning to society an equivalent for all that he has received therefrom plus his proportionate share in the further development of society itself and in the further enrichment of the inheritance to be passed on to future generations.

The educative process must at every step take into account the solidarity of the race and the unitary character of individual life. Physical and mental development cannot be separated in fact and secured in succession. The processes are inseparably linked together. As the years succeed each other in the child's life, there is a change of emphasis from the physical to the mental, and for purposes of discussion it may be convenient to consider the physical side of the process before undertaking to study the higher life of man in his social and spiritual relationships.

It is the business of education not only to protect the health of the child and to promote the development of his brain and muscle, but so to train his eye and hand that he may in due time be able to wrest from his physical environment the means of support: food, shelter and the various instrumentalities of physical comfort and well-being. Nor does this mark the end of the process. During infancy and childhood the individual depends on others for his daily dole of food and for most of those

things on which the maintenance of physical life depend and if the race is to continue to maintain itself, not to speak of making progress, the individual in due time must do for others what has been done for him. Efficiency in this task marks the culmination of the educative process along economic lines. The purpose of this line of educative work may properly be designated as education for economic efficiency.

When the educational endeavor is directed towards equipping the individual for self-support, the purpose is sometimes described as the *bread-and-butter-aim*. The validity of this aim is nowhere challenged nor will it be questioned that this aim should be the first to engross the attention of the educator after due provision is made for the health and physical development of the child. Indeed, where the child fails to attain in due time the power of self-support, his failure will destroy self-respect and set up processes of disintegration which will go far towards the destruction of his physical and mental life. Such a failure, moreover, not only works disaster to the individual but inflicts a proportionate injury upon society.

These facts are generally recognized, nevertheless our schools not infrequently fail to achieve the bread-and-butter-aim. It is well to note that these failures occur not because the aim seems undesirable or unimportant but because the process through which economic independence may be achieved is complex and often beyond the knowledge and control of the teacher.

Attention has often been called to the likenesses and differences to be found between the dependence of the young mammal upon its mother and of the parasite upon its host. The contrast between these two processes

affords a suggestive and profitable analogy for those who may be interested in training the child for economic efficiency.

The child's dependence upon his mother is normal and to it is due in no small measure the advance of the mammal to the high plane of life which it occupies, and if man considered as an animal has attained to the headship of the sentient world, this exalted position is also due, in large measure, to the fact that the mother supports the child during a long period of dependence in which all the activities of the child may be devoted to his own development. The dependence of the parasite upon its host, on the other hand, is not normal nor does it lead to the development of the parasite, but on the contrary it produces in it a corresponding degree of degeneracy.

Considered superficially, the dependence of the young upon its mother resembles the dependence of the parasite upon its host. In both cases there is exhibited an inequality in which one gives and the other receives, but here the resemblance ends. In both cases the dependence is not a fixed state but a progressive one and the movements in the two cases run in opposite directions. Parasitism begins in complete independence and culminates in complete dependence; whereas the young mammal begins its life in complete dependence upon its mother and proceeds gradually towards complete independence. Parasitism is due to the avoidance of effort and to a following of the line of least resistance. The independence of the growing child is gained step by step through effort and the overcoming of obstacles. Whatever tends to check this growing independence, whether it be an obstacle too great for the child to overcome or a line of lessened resistance which bids too strongly to imitate tendencies to ease, sets

up in the child tendencies to social parasitism which are accompanied by disastrous consequences analogous to the results of parasitism in the lower forms of life.

The characteristics of the parasitism of locomotion may be studied in the remora. This fish, by means of a lamellated suctorial disc on the top of its head, adheres to the shark and thus secures free transportation, but the result to the remora of this escape from self-sustaining labor is a system of flabby and partially atrophied muscles. The parasitism of protection is illustrated in the hermit crab which finds protection from its enemy in a discarded conch-shell and pays for this privilege by the loss of a protective carapace, several of its locomotor appendages, and its freedom of movement. A still lower form of parasitism with more disastrous results is exhibited by the tapeworm which absorbs the digested food prepared by its host and at the same time secures favorable temperature, protection and free transportation, but in return the creature sacrifices everything worth while in its physical organism. Through disuse, it has lost its alimentary tract, its nervous system, its sense organs, its locomotor appendages, its organs of excretion; in fact, it has lost almost every power but that of perpetuating itself through groups of spores which it sloughs off from time to time.

Analogies to each of these three forms of parasitism may be discovered with little effort in almost any of our schools. They find their most apt illustration, however, in the criminal and dependent classes of our adult population which bear eloquent testimony to the frequent failure of our schools to achieve the economic independence of the pupils entrusted to their care.

The support which the parent affords the child during

the long period of its immaturity is necessary to its full development, but it should be noted that this support proves valuable only in so far as it is utilized by the child for its individual development. The moment it is used in order to escape healthful effort it becomes a curse instead of a blessing. The same conditions regulate the dependence of the child in his mental and moral processes upon the teacher and upon his fellow pupils. All assistance that leads to more intense or to better directed effort is helpful, but the moment the assistance is used to lessen due effort the effect is in the direction of parasitism.

The degeneracy of the children of the *nouveau riche* has often been commented upon. The fond father, remembering the hardships and the efforts of his own childhood, sometimes foolishly endeavors to relieve his children from similar efforts and in doing so takes away the necessary stimuli for the development of their characters and independence and sets up parasitic habits which inevitably lead to ruin.

It has been pointed out repeatedly that the children of really great men seldom achieve a notable career. Not infrequently the reason for this may be found in the fact that every question of importance is likely to be decided by the brilliant parent and the child, relieved of the necessity of judging, fails to obtain the exercise of his power and as a consequence fails to develop. His condition is still further aggravated by the fact that when he does venture to do anything or to decide anything he is conscious of the overshadowing superiority of his parent and frequently is humilated by the contempt which his well-meant efforts evoke.

The school is even more prolific of parasitic habits than the home. At times the child is discouraged by

tasks which are wholly beyond his capacity and such discouragement always tends to arrest development and to set up habits of dependence. When the teacher assigns a task that is too difficult and, after the pupil has failed to accomplish it, does the work himself, there is an added incentive to parasitism. Frequently the children help one another or seek and find help at home, and in these latter cases the evil may be worse than in the former for the teacher may be supposed to take some means to evoke successful effort from the pupil, whereas less skilful companions and members of the home group are likely to be wholly unaware of the dangers which inevitably attend upon helps given to the child in the performance of assigned tasks.

The dangers of forming parasitic habits, great and real as these are in both the home and the school, should not lead us to deny to the child that help and support which are necessary to his normal development. Such a procedure would mean grave loss both to the individual and to society. As far as circumstances will permit, all the help that will be profitably used by the child in the development of his body, of his mind, and of his character, should be given, and in the giving the best interests of society are served. When the poverty of the family makes it necessary to use the efforts of the immature child for family support instead of for the child's own development there is loss not to the child alone but to the family and to the state. In this consideration free schools find their justification, and in the same consideration it is sought to justify the growing practice of supplying the child's need through the school in other than educative directions. The children are sometimes fed in the school. Their eyes are examined and glasses provided by the school.

Adenoids are removed by the school surgeon and district nurses furnished by the school seek to assuage many of the ills to which flesh is heir. The wisdom of supplying the children with these helps is scarcely open to question, even though the wisdom of supplying this help through the school instead of through the home may be seriously questioned.

The bread-and-butter-aim rightly understood does not mean that the home and the school should endeavor to prepare the child for self-support at the earliest possible moment. On the contrary, it should mean that the attainment of self-support in due course of time is kept in view in every stage of the educative process. In laying the foundations of bodily health and strength, in keenness of vision and skill, in bodily movements and in the handling of tools and instruments, a remote preparation is being made which, if properly seconded, will mean high efficiency in the end.

In considering the bread-and-butter-aim, attention has been centered upon the economic needs of the individual and upon the individual's growing power to meet these needs. In human society, however, the individual does not live in isolation, nor can he achieve independence and support except in combination with his fellow-man. He produces one thing in excess of his needs and exchanges this with others who have produced some other necessary thing in excess of their need. Nor does the matter rest here. Civilized man, at least, has long since passed beyond such simple conditions as are indicated by this illustration. In the growing complexity of the economic systems under which civilized man lives, bread and butter is still necessary to the individual, and pressure of various kinds is brought to bear upon the individual to make

him earn it. But when attention is centered on the group cooperating in the production of the various commodities used in the conduct of civilized life, and when educational endeavor is directed to the fitting of the individual for efficiency in this cooperative group, it may be better to speak of the directive purpose as the industrial aim rather than the bread-and-butter-aim.

The home is, of course, the primitive school, and it should always remain a most effective school. Under normal conditions it conducts not only the education of the infant but, even after the child enters school, the home continues to have charge of him during the greater portion of each day. That the parents should be animated by purely altruistic motives in what they do for the child is an ideal that is not always realized. The good of the child may be kept in view without losing sight of the interests of the home. In the industrial home of the past the child at an early age was a real asset. His labor contributed an ever-increasing share of the support of the home.

The school was created by society and is maintained by society presumably for the good of society. The individual's good is considered only in so far as it is included in the good of society. In the home parental love supplies disinterested effort, but society lacks the warm, throbbing heart of the parent and it seldom achieves disinterested love for any individual. In so far, therefore, as the school undertakes the development of the pupil for self-support, it is considering even the self-support of the individual in the light of preventing burdens from being imposed upon society, and its further consideration is to develop the individual so as to increase the economic efficiency of society.

While society is presumably seeking its own ends in educating the individual to industrial efficiency, the individual being educated is not necessarily moved by altruistic motives. His intelligence may be sufficiently developed to enable him to realize that he can no more attain his individual aims in isolation than Shylock could obtain his pound of flesh. It is conceivable, therefore, that he might second the efforts of the school in his behalf without being animated by the same motive as that which moves the school. It is highly important, for the good of society, that the individual's motives be socialized, but it frequently happens that they are not. The school that fails in this respect fails in a most important aspect of its duty to the individual and to society.

The dependence of the individual upon the group for the attainment of self-support may be witnessed far below man in the scale of animal life. The dependence of the individual upon the group indeed constitutes one of the most striking characteristics of such lowly forms as ants and bees. Efficient cooperation and a high degree of specialization of function may be observed in these insect colonies. There is, however, no trace of altruistic motives. In like manner, the cooperation of man with his fellow-man in life-sustaining labors may be secured without the employment of an ethical motive, but when man cooperates with his fellow-man for the attainment of individual aims alone he is not functioning on a plane of life above that of the mere animal, nor does his cooperation ever attain a high degree of efficiency or become operative in the attainment of remote ends.

The more complex our civilization becomes and the more completely we pass from a tool to a machine civilization, the more necessary does it become for man to learn to

cooperate efficiently with his fellow-man in order to sustain life and to attain to the well-being and happiness that his nature demands. To secure such cooperation and to secure it with the right motives and along right lines becomes, therefore, the business of education. Nor is the task a light one. The instinctive inheritance of the ant and the bee determines the cooperation of individual with individual for the attainment of the common ends of the colony, but the infant does not number this co-operative instinct among his endowments and he must acquire both the ability and the habit of cooperating with his fellows through education.

Three educational agencies have in the past played rôles of varying importance in educating to industrial efficiency: the home, the apprenticeship system and the school. At times these have worked in cooperation. In primitive times the home practically dominated this phase of education. At present the tendency is to place this burden chiefly upon the school.

Under primitive conditions, the child and the youth were taught by parents and by the elders of the tribe to cooperate with their fellows in all life-sustaining labors. As society advanced in organization and greater skill along certain lines of activity was demanded, there gradually arose definite educative agencies whose business it was to impart the necessary skill.

In the sixth and following centuries the Benedictine monks taught the Roman world the dignity of labor and trained the nomads in the arts of peace. As a result of these training schools industry advanced in Europe and the industrial arts and the fine arts were developed to a relatively high degree of perfection. In the course of time this educational function was taken over by guilds and by the apprenticeship system.

Throughout the entire history of education for industrial efficiency it may be noted that just as in the physical dependence of the young upon its parent the high development of the adult is the end sought, so the activity of the child is, and should be, concerned with self-development and with resulting adult power. Whenever this principle is violated, retrogression results. When the child or the youth labors solely to meet the needs of the present moment, without taking into account the effect of such labor on his later life, there results an arrest of development and a lowering of ultimate efficiency. It is natural, however, that this should be the procedure when the child is left to follow his own impulses, which for the most part deal with present needs, hence advance to higher degrees of industrial efficiency is obtainable only through the exercise of authority. The parent, the tribe, or organized society must exercise due authority in controlling the child's activity so that it may result in promoting the best interests of the child as well as the best interests of the adult and of society itself.

The religious revolt of the sixteenth century profoundly disturbed the social and economic conditions of Europe and led to deep-seated changes in educational policies which reached out beyond the school and affected industrial education as imparted in the home and in the shop. The breaking up at that time of the old order in war and in peace necessarily affected economic conditions and called for due change in the education of the masses. Comparing the past with the present, Mr. Prosser, Secretary of the National Society for the Promotion of Industrial Education,[1] says:

"The century that gave us Shakespeare and Bacon had economic and social problems of the same general character

[1] Proc. N. E. A., 1915, p. 296.

as those of our times—the decay of towns, the social unrest, the instability of the rural population, the increase of pauperism and unemployment, and the diminution, actual and feared, of industrial skill. The Elizabethans established a system of compulsory apprenticeship to solve them, which embodied a philosophy and established general policies with regard to child labor and child training in industry to which we must give heed before we can meet successfully the same question. The Elizabethan statute of compulsory apprenticeship was the expression of the experience of the English nation stretching over a period of more than two centuries with regard to the employment and education of children for industry. In a primitive age it asserted certain fundamental principles concerning the relation of the state to the training and conservation of youth which are no less true and applicable in our own day."

The author proceeds to formulate the following five principles which express a growing conception of the relationship of the state to the industrial training of children and youths:[1]

1. A nation-wide system of industrial education is necessary to the economic prosperity and supremacy of the country.

2. Governmental control and regulation of the employment and training of the youth in industry is necessary to the accomplishment of a nation-wide system of industrial education.

3. Training for industry and the labor of children in industry are matters of public concern which the state has the duty as well as the right to control, as far as the welfare of the youth and the public good may require.

[1] *Op. cit.*, p. 297.

4. The child is the ward of society over whom the state should assert such a guardianship both in his employment and in his education as may be necessary to make him a responsible citizen and an intelligent worker.

5. The primary purpose of the youth in industry should not be immediate profit to his employer or to society but preparation for life and for labor, and his career as a young worker should be controlled and supervised by the state so as to insure this end.

With the intervention of the national government in the education of children and youths for industry, the aim is lifted beyond that of mere skill in industry and may be more properly spoken of as education for economic efficiency. It is no longer the guild that governs, nor is the aim any longer the exaltation of the individual craft or the welfare of those concerned in it. The interests of all crafts and all industries merge in the interests of the people as a whole. The aim is the prosperity of the nation.

The nation is not concerned primarily with the individual or his welfare or with the exaltation of any particular industry. It is concerned with the industrial output of a nation as a whole, and hence, when it uses its authority in the field, it uses it to establish a nation-wide system of industrial education to the end that the prosperity and supremacy of the nation may be secured. This was the guiding motive of Bismarck in developing industrial education in Germany and it was without doubt the reason that led England, in the sixteenth century, to make apprenticeship compulsory. The English Parliament sought thereby to promote England's trade supremacy through the increased skill of her workers. The fundamental principle involved is simple: the ability of a nation to compete successfully in the markets of the world de-

pends upon the ability of her workers to produce more goods and goods of a better quality than her competitors. This same principle determines the prosperity of local communities.

In the course of time, owing chiefly to the advent of labor-saving machinery and to the concentration of capital in industrial enterprises, the apprentice system in England broke down. New means to secure the same end were urgently demanded and the schools were substituted. A similar stress was felt throughout Europe.

Bismarck met the situation by establishing, through state control, a system of compulsory continuation schools to supplement the apprenticeship system. A knowledge of the laws lying back of the materials and of the principles involved in the industrial process was imparted in the school, while the apprenticeship system continued to give skill to hand and eye. It is to this combination, rather than to the high character of the continuation schools themselves, that the commercial supremacy of modern Germany is due. England allowed the apprenticeship system to fall into decay and thus lost her industrial leadership.

A return to the apprenticeship system, however, does not seem possible either in this country or in England. Even in its highest development in seventeenth-century England it affected only a small portion of the population who were prepared by it for the skilled trades. It did not reach the rural population. Moreover, in this country the problem is rendered still more difficult by the fact that remedy must be sought, not from the national government, but from the legislatures of the several states. We have no national system of education, nor does the nation, as such, exercise its guardianship over childhood.

The first attempt made by the several states to aid in the solution of the problems involved in industrial education was the enactment by several of them of laws designed to prevent the exploitation of the labor of childhood and youth at the expense of the adult for the immediate benefit of capital. It still remains to be determined how far it may be wise for the state to take an active part in the compulsory control of the industrial education given to our youths. The spirit of our people renders many things unwise or impossible which may be in entire keeping with the national life of other countries. It still remains to be seen how far we may proceed even in the name of wisdom to control the actions of a people who in youth, as well as in adult life, are insistent upon the personal right of employing their energies as they see fit whether their decision may embody the highest wisdom or not. The method employed in Germany, however successful it may have proven there, will scarcely find favor in this country.

The difficulties of the situation, however, should not blind us to the fact that it is the business of education to fit the children of each generation to take their places effectively under the conditions of the economic world which they will meet on reaching adult years.

At present the United States Government is appropriating funds towards the upbuilding and support of agricultural and vocational schools. Several of the states and individual cities are following a similar course. There is, in fact, a growing recognition of the need of efficient training in the various fields of industry, but we have yet to determine upon the means to be employed to the attainment of this end.

CHAPTER XIV

EDUCATION FOR SOCIAL EFFICIENCY

Economic efficiency is a desirable quality in the human adult and the production of this quality is both a legitimate and a necessary aim in education, but it is neither the sole aim nor the highest aim of the educative process and it must not be allowed to monopolize the attention of the teacher nor to occupy an undue share of the pupil's time and attention. Moreover, since man's adjustment to his physical environment is not the ultimate aim of life but a mere prerequisite to the development of those higher qualities in which the true values of human life are to be found, the ultimate motives for economic endeavor must be sought elsewhere than in the industrial process or its results. In fact, the chief value of economic efficiency both to the individual and to society is to be found in the leisure which it secures for the pursuit of higher aims.

However, the value to man of personal labor is not to be found solely in the acquisition of food and shelter and of material possessions. Health and normal organic development are promoted by reasonable exercise of the physical and mental powers which are brought into play in industrial processes and thus a foundation is laid for the development of man's higher powers. In this sense economic efficiency is not only a prerequisite but a means to the attainment of complete living and social efficiency.

After the tragedy in the Garden, Jehovah promised redemption to man and proceeded to enlighten Adam's darkened intellect concerning the redemption of his flesh: "In the sweat of thy face shalt thou eat bread till thou return to the earth out of which thou wast taken: For

dust thou art, and into dust thou shalt return." This sentence was not a curse but a blessing, and the more man advances in civilization the more he realizes the necessity of labor and the blessings which it brings. St. Benedict did not hesitate to link labor with prayer in the means to be employed by his children for the salvation of their souls. But in this combination labor was to receive its motivation through prayer and through the desire for the higher things of the spirit.

In this, the Saint followed the lines laid down in the sacred scriptures for we read in Deuteronomy:[1] "He afflicted thee with want, and gave thee manna for thy food, which neither thou nor thy fathers knew: to show that not in bread alone doth man live, but in every word that proceedeth from the mouth of God." "Dust thou art and into dust thou shalt return," was not spoken of the soul, which, though linked to the flesh, was destined by its very nature to endure forever and to seek unceasingly for divine companionship. Bread is necessary to the flesh which by its nature is doomed to perish, but the word of God is equally necessary to the spirit through which man claims an undying life.

Our Saviour, in His teaching, frequently alluded to this dual nature in man and pointed out the superiority of the higher aims in life over bread-winning and the accumulation of riches without, however, denying the validity of the lowlier aims. In the fourth chapter of St. Matthew we read: "Then Jesus was led by the spirit into the desert, to be tempted by the devil. And when he had fasted forty days and forty nights, afterwards He was hungry. And the tempter coming said to him: If Thou be the Son of God, command that these stones be made bread. Who

[1] Deut. viii, 3.

answered and said: It is written, *Not in bread alone doth man live, but in every word that proceedeth from the mouth of God.*"[1] This contrast of aims is used by our Lord again as recorded in the sixth chapter of St. John: Jesus multiplied the loaves and fishes and fed the hungry multitude and on the following day when the multitude sought Him on the other side of the sea of Genesareth, He said to them: "Amen, amen I say to you, you seek Me, not because you have seen miracles, but because you did eat of the loaves, and were filled. Labor not for the meat which perisheth, but for that which endureth unto life everlasting, which the Son of man will give you."[2] These hungry Jews had lost sight of the higher life in their eager pursuit of bread and for this they were rebuked by the Master, and after two thousand years the same mistake is still being made by many who call themselves followers of Christ, and the same rebuke is being earned. In the whole experience of the human race, it has been abundantly shown that success in the pursuit of wealth is likely to end in a failure to appreciate the higher things of life.

This smothering of the higher aim in the lower was the central theme in many of our Lord's lessons. Our Lord, explaining to his disciples the parable of the sower who went out to sow his seed, said: "And that which fell among thorns are they who have heard, and going their way, are choked with the cares and riches and pleasures of this life, and yield no fruit."[3] The rich young man caught a glimpse of the higher things of the kingdom and yearned for them but his successful pursuit of wealth had attained to a position of control in his life and caused him to renounce the higher aim for the lower. It was the fre-

[1] Matt. iv, 1–4.
[2] John vi, 26–27.
[3] Luke viii, 14.

quent occurrence of this bondage of the spirit to the flesh that led our Saviour to declare that it was as hard for a rich man to enter heaven as for a camel to pass through the eye of a needle, and it was this that led Him to describe such men as fools, as He does in the parable of the rich man who was about to build new barns to house his abundant harvest: "But God said to him: Thou fool, this night do they require thy soul of thee: and whose shall those things be which thou hast provided? So is he that layeth up treasure for himself, and is not rich towards God."[1] Following immediately upon this passage our Lord formulates the principles which should govern the relative position of the lower and higher aims of life. "Therefore I say to you, be not solicitous for your life, what you shall eat; nor for your body, what you shall put on. The life is more than the meat, and the body is more than the raiment. . . . Seek ye therefore first the kingdom of God and His justice, and all these things shall be added unto you."

The recognition of the fatherhood of God carries with it the recognition of the brotherhood of man and fixes the practical norm of human conduct which was formulated in the Old Testament and accepted by our Lord as the dual commandment of the New Law: "Thou shalt love the Lord thy God with thy whole heart and with thy whole soul and with thy whole mind. This is the greatest and the first commandment. And the second is like unto this: Thou shalt love thy neighbor as thyself. On these two commandments dependeth the whole law and the prophets."[2]

The Master here brings to view the fountain of Divine

[1] Luke xii, 20–21.
[2] Matt. vi, 25, 33.

law from which the Chosen People drank and which preserved them from the ruin that fell upon their neighbors, and it is from this same source that Christianity has drawn its inspiration and its strength. It is this that gives meaning to the phrase social service and makes education for social efficiency the high and noble aim that it is. As Christians, we must strive not alone for food and raiment for our bodies, but we must strive for the attainment of riches towards God and the possession of temporal goods that we may have wherewith to minister to our neighbor's need. It is this high motive that saves economic efficiency from degradation and makes it worthy of a place in the Christian system of education. Economic efficiency that is secured through selfish motives is a menace to society; it contains within itself the germs of discord and is the prolific mother of wars and bloodshed; it raises up capital against labor, and nation against nation in fratricidal struggle.

The love of God not only lifts man's mind above the earth and things of earth and unites man to his Maker, but in revealing God as a common Father it opens up in man's heart a well-spring of love for his fellow-man that extinguishes the fires of hate and brings peace and order down to earth. Obedience to the will of God is the highest norm of human conduct and upon it rests the demand for social service. We are not left, however, to mere inference in this all-important matter. St. John identifies the love of God with the love of man in his oft repeated exhortation to the faithful: "Dearly beloved, let us love one another, for charity is of God. And everyone that loveth, is born of God, and knoweth God. He that loveth not, knoweth not God: for God is charity."[1]

[1] John iv, 7.

And again, "If any man say, I love God, and hateth his brother; he is a liar. For he that loveth not his brother, whom he seeth, how can he love God, whom he seeth not."[1] Our Saviour repeatedly linked together in inseparable union the love of God with the love of man. In the parable in which He pictures the final judgment, the love of God is judged by its fruitage in love of man: "Then shall the King say to them that shall be on His right hand: Come, ye blessed of My Father, possess you the kingdom prepared for you from the foundation of the world. For I was hungry, and you gave me to eat; I was thirsty, and you gave Me to drink; I was a stranger, and you took me in: Naked, and you covered Me: Sick, and you visited Me: I was in prison, and you came to Me. Then shall the just answer Him, saying: Lord, when did we see Thee hungry, and fed Thee; thirsty, and gave Thee drink? And when did we see Thee a stranger, and took Thee in? Or naked, and covered Thee? Or when did we see Thee sick or in prison, and came to Thee? And the King answering, shall say to them: Amen I say to you, as long as you did it to one of these my least brethren, you did it to Me."[2]

In these pages economic efficiency in its various aspects extending throughout the entire educative process was considered before the discussion of social efficiency as an educative aim, but in practice the two aims cannot be separated, since the latter must supply the motive for the former. Disinterested love and not selfishness should be made to govern the child's actions in the home and from his earliest days in school to his graduation. This was one of the guiding principles in the preparation of the Catholic Education Series of elementary text-books. In

[1] John iv, 20.
[2] Matt. xxv, 34–40.

one of the earliest lessons of the First Book we find the following passage which may serve to illustrate the method employed:

"Jesus gives the secret which He brought from heaven to every one who loves Him. When we learn this secret, we love one another, then joy grows in our hearts like a beautiful flower. It fills our lives with sweetness." And on the following page: "The children play and sing with their mothers. Some of them pick flowers to give to their fathers when they come home from work."

It is necessary indeed that our children be educated for economic efficiency, but it is even more necessary that in this process proper motivation should be developed. Economic efficiency, from the very beginning of the educative process, must be sought not for its own sake nor for selfish aims. Indeed, this aim is unattainable in any high degree unless it be lifted up by a motive that transcends the industrial world and the mere needs of man's physical existence. Moreover, it is not possible to develop in the child economic efficiency first and after this end has been attained to begin the work of education for higher aims. The child's nature is unitary. His unfolding life is complex and the various elements in it unfold simultaneously. While for purposes of study we may follow one or another aspect of this development through its various stages of transformation, the fact should not be lost sight of that while these transformations are actually taking place in the child, a many-sided development is manifesting itself, the various phases of which are linked together in close interdependence.

The father who pays his child for the performance of little personal services in the endeavor to train him for economic efficiency is defeating his own purpose by sup-

plying a low motive for the child's act. The child's action should spring from disinterested love of his father. This love will grow in the proportion in which it is made the motive of the child's activities. When personal gain is substituted for love as the motive of the child's actions, seeds are sown in the child's heart that will render the man incapable of effective cooperation with his fellow-man even in the great industrial enterprises which constitute so prominent a feature of our present civilization.

The school may be expected to succeed in developing the child who habitually acts from motives of disinterested love of father and mother, brothers and sisters and home into the man who is animated by the love of God as his Father and his fellowman as his brother, into the man who finds his own success in the success of his fellow workers, into the man who identifies his own interests with the interests of his employer. The training for economic efficiency that stops short of this fails in the achievement of the end which justifies us in including economic efficiency among the legitimate aims of the educative process.

In the training for economic efficiency given in the industrial home of the past three main elements may be discerned.

1. The child's tasks were real, not formal. The thing that was done was worth while. It counted towards the support of the home and hence a real interest was easily developed and maintained and this interest in turn called forth a proportionate effort.

2. The motive for the labor involved and the efforts put forth sprang from love of parents and home and from a strong sense of solidarity in the home group. This tended to purify the heart of the child and to strengthen and develop the nobler elements of his nature.

3. Tasks performed under the compulsion of real interest by children and youths animated by disinterested motives were effective in producing skill.

In the apprenticeship system the apprentice was in many respects treated like a son and a strong bond of personal loyalty frequently grew up between the master and the apprentice as a result of a thousand acts of personal kindness from the master and reciprocal loving service by the apprentice. "Though there were individual cases of ill treatment, the youth received a fair return for his labor in self support and education, and the guilds took it upon themselves to supervise the relationship between master and apprentice and to prevent abuse." The elements of this training were similar to those of the industrial home with possibly a lessened bond of love.

When the monastic schools undertook the work of training for the arts and industries, the motivation was lifted to a higher plane. The labor was performed for love of God and fellow-man. The three elements of the industrial home were here exalted. The love of earthly father was transformed into love of the heavenly Father and the love of brother and sister and of members of the narrow home circle reached out until it embraced all mankind irrespective of race or creed or color. The work begun here culminated in the building of the medieval cathedrals, every stone in which is a lasting monument to the skill and the high motives of the builders. They labored, architects and builders alike, not for personal gain or personal renown but for the love of God and for the glory of their native city.

The industrial home, the apprenticeship system and the monastic industrial schools have disappeared in the profound economic changes brought about by labor-saving

machinery and factory systems, and the school is called upon to take over the work of these earlier educational agencies. In the assumption of this new burden the school is confronted with many grave difficulties and many unsolved problems which the vocational schools of today are attempting to meet.

In the days when the child received a valuable sensory-motor training in the home and when character was formed by the performance of home tasks and the bearing of ever-increasing responsibilities, the school habitually confined itself to the teaching of the school arts: reading, writing, ciphering, grammar and a few facts of geography and history. Today there is a growing realization of the futility of this work unless a means is found to continue the fundamental education in the real things of life which the home is no longer able to give. Nor can we count on vocational schools for older pupils to do this work. The elementary school must face the task in spite of the handicap of its own traditions and in spite of the inadequate means at its disposal for the performance of a task for which it was not designed.

The school, in endeavoring to do for the child what was done for him in the industrial home, must, of course, use other means and must seek to attain the same ends in other ways, but whatever means and methods it may employ, it must under penalty of grave failure awaken the child's interest in the task set and supply adequate motives. If it fails in these two things, it will fail to impart skill in a high degree and it will fail to socialize the pupils which, after all, should be the first duty of the school considered as a social agency.

In the efforts heretofore made in this direction by our schools there may be discerned too frequently the center-

ing of attention upon the effort to impart skill with a neglect to attend to the other two elements of the process. When the manual training school undertakes to teach the pupil how to use a plane, how to use a chisel or a saw and how to make a joint, it is hard to maintain vital interest. The situation is in no way comparable to that of the industrial home where the child aided in making an article of permanent value. Proper motivation is still more difficult in the manual training school. It is true that we may point out to the pupil that the skill acquired in these exercises is to be used later on for the achievement of worthy results and as a means of gain, either for himself or for his family, but these ends are too remote to be very effective in socializing present labor or clothing it with interest.

While education for social efficiency demands, in the first instance, that all the child's efforts in the direction of bread-winning should receive proper motivation, it demands no less imperatively that the child be taught effectively that society does not live by bread alone and that it is a duty no less incumbent on each individual to contribute to the higher elements of social life than to contribute towards its material prosperity.

Under the social and economic conditions of the past the school and the formal education which it imparted reached only the children of the upper classes. The masses for the most part were taught to labor in the home and learned the great spiritual truths necessary to their salvation in the Church. The school prepared the children of the upper classes for leisure and for the learned professions. With the rise of democracy and the change from a tool to a machine civilization the scope and function of the school have been indefinitely widened. Education is no longer confined to the classes but reaches out to all

the children of the nation. Its scope is no longer limited to the preparation for the worthy use of leisure but embraces preparation for the profitable employment of labor. In fact, this latter extension of the function of the school has been so much emphasized in recent years that there is grave danger that the school shall forget that its best fruitage is still to be sought in the preparation of the children of the nation, not for efficient labor, but for the right use of leisure.

With each advance in our conquest over nature, with each new force that is harnessed to man's service, the hours of labor for the masses are shortened and the hours of leisure are lengthened. This is as it should be and in it lies great hope for the future of mankind, but whether these hopes be realized or not will depend on the uses to which man will devote his hours of leisure and this in turn depends upon the school's efficiency in teaching the children of the masses to empoly their leisure for personal culture, for the advancement of civilization and for the promotion of the higher interests of mankind.

The school may be excused for slow progress in its attempt to train for economic efficiency, for this is a new task to which it has not yet grown accustomed. It is a work for which it was not designed and for the performance of which it has scanty and inefficient means at its disposal, but in educating for the proper use of leisure the case is otherwise. This is the work for which the school was formed; this is the task which it has grown accustomed to discharge through centuries of service and for the successful performance of which it has rich resources at its disposal such as are not possessed by any other educative agency in society.

The socializing value of the training for industrial

efficiency which was lost in great measure by the transfer of industry from the home to the factory and by the assumption of this phase of education by other agencies than the industrial home, should be compensated for by the training given in the school in the arts of right living.

The school should train the children to beautify the home and its surroundings. In this there is real interest for the children, there are real things to be done. The cultivation of flowers, the trimming and adornment of lawns, planting of decorative shrubbery, may all be directed by the school. In these employments the children will find healthful outdoor exercise; they will grow in the appreciation of the beautiful and incidentally they will acquire valuable knowledge that will prove helpful in the solution of the industrial problems of later life. In these occupations of the children, moreover, the home, which has been weakened by the loss of industrial occupations, will be strengthened. The sense of solidarity may be here regained together with the unselfish motivation, for all that the child does in these respects is calculated to yield pleasure to the parents and to the other members of the home group.

Similarly, the training which the children receive in art, whether in the modelling of clay, the cutting and folding of paper, in drawing and painting, in the designing of costumes, in working out interior decorations, may be directed towards the improvement and the adornment of the home. This line of work may be made to yield results not inferior to decorative gardening in their socializing effect.

The cultivation of the voice in speaking, in reading and in singing, yields immediate pleasure and reacts favorably upon the home. From this beginning the child's interest

in music may be awakened and his emotions may be developed along lines which will lead to the formation of worthy character. Through music, love for God and fellow-man may be made to dominate the emotions and passions of youth and home may be made a center from which joy and culture will radiate into a larger social circle.

Literature and history have always been held in high esteem because of their socializing value. When these subjects are properly taught, the children learn to admire and to imitate other models than the captains of industry. They come to appreciate the fact that the sculptor, the architect, the painter, the musician, and the poet confer greater benefits on mankind than the man who organizes sweatshops, who builds skyscrapers, or who hoards up gold. They come to understand in time that the man who, as savant or discoverer, as writer or teacher, brings the great truths of all times within the reach of the struggling millions is the real benefactor of the race, and that beside him stands the physician, the surgeon, the statesman and the saint. Those who labor for material gain alone sow the seeds of discord and inflame the passions of lust and greed and when they die they are apt to be followed, not by the blessings but by the curses of their fellow-men, whereas, those who labor for the higher things of life bring blessings that endure and leave behind them a memory that remains a benediction to all mankind.

CHAPTER XV

EDUCATION FOR INDIVIDUAL CULTURE

In the many profound changes that are taking place in the conduct of education, in response to the deep-seated social and economic changes of our time, there is danger that the individual and his needs be lost sight of. There is deep concern that the individual be trained to economic efficiency so that the material interests of society may be promoted and there is scarcely less concern that he be educated in such wise that his life and energies may minister effectively to the conduct of government and the welfare of society in its various aspects. The individual is no longer left to his own resources in procuring an education, nor is the father any longer required to bear the burden of educating his children. Under these circumstances, it is natural enough that the education supplied by society should be conducted in the interests of society, nevertheless, the individual has an indefeasible right to life, liberty and the pursuit of happiness and he has a corresponding claim upon existing educational agencies to aid him in securing these ends.

Christianity, while acting as a great socializing agency, has never lost sight of the individual or of his claims. In her teaching each individual has an immortal soul which must be saved and which must discharge its duties towards God and fellow-man. In the discharge of these primal duties, the individual needs the help that education is designed to give and while he is bound to love his neighbor, this love of neighbor does not blot out his personal claim to life, liberty and happiness here or to eternal well-being hereafter.

In considering the aims of education, therefore, educating for complete living must be assigned an important place, nor must this phrase, complete living, be taken in so wide a sense that the individual's interests are merged in the social claim. Society, after all, is composed of individuals and its level of culture and refinement depends upon the culture and refinement of the aggregate of its members. The quality of culture should, therefore, be imparted to the individual, or developed in him, in the first place, because of the benediction which it brings to him, and in the second place, because of the many blessings which it is calculated to bring to society. This truth is in danger of being obscured by current readjustments in educational theory and practice.

Among the many changes in our concept of education during the past few decades may be noted, in the first place, a change in the value placed upon knowledge. We turn today to digests and encyclopedias for information. Man's memory was a valuable storehouse in the days when books were scarce and difficult of access and in the still earlier times when oral tradition was the only available means of passing on the wisdom of the ages. Today the memory is valued as a means of holding truth in the mind during the brief period necessary for its assimilation. The excellence of the teacher's work as determined at the end of the school period is no longer the amount of knowledge which the student has committed to memory but the development of the student's powers and faculties and his mastery of the art of study and of the utilization of knowledge.

As a result of the rapid development of biological and psychological science, the center of orientation in all educational endeavor has been transferred from the logical

basis of the body of truth to be imparted to the growing mental capacity of the pupil. The teacher has practically ceased to rely upon the tabulation of knowledge and the memorizing of formulae and directs his endeavors to freeing the pupil's powers and to the development of his self-reliance. Nevertheless, the content of the curriculum rather than formal discipline is the end sought, but the content is valued, not for its own sake, but as food and direction to a growing and developing life. The effort is being made to cultivate the pupil's powers of observation and reason by their employment in consecutive lines leading to definite results. Hence, objective and laboratory methods are everywhere taking the place of drills and tables and grammatical forms.

The rapid development of the natural sciences and their manifold applications to the business of life have served to bring about an era of extreme specialization in adult employment. This has reacted on the school in such a way as to cause great difficulty in equipping the pupil with the intensive knowledge demanded for his special work in life without sacrificing to this his breadth of view and his ability to profit by the labor of the multitudes who are working in other fields. The worst feature of this movement is to be found in early specialization before broad culture has been attained.

In practice it may be noted that according as emphasis is unduly laid on the need of culture or the need of specialization the pupil is rendered either superficial or narrow. It is not easy to hold an even balance between these two elements, particularly in the schools which receive pupils from every walk of life and from which pupils depart at several stages of the educative process. Even where the school deals with the children of the favored classes who

may hope to benefit by the full extent of the educational courses offered, the difficulty of preserving balance between culture and specialization is not absent. Today the work of productive scholarship can be performed only within the limits of a narrow specialty but even here a broad basis of receptive scholarship is necessary to all worthy achievement.

If it be considered the sole function of education to develop the technical expert, the man who can deal effectively with some one phase of thought or of work irrespective of the effect such a training may have upon his own life and character, then the emphasis should fall upon the intensive side of the process. Everything will be sacrificed which does not directly contribute to his power in his chosen field of activity. On the other hand, if we hold the chief function of education to be the development of the individual in such wise that life may yield the greatest possible amount of joy and happiness to him and through him to the social group in which he lives, then the emphasis should fall on the receptive and broader phases of the educative process. To those who believe that education is for life rather than for the conquest of nature and the attainment of industrial supremacy, the development of the mere specialist will always appear to be a failure.

While there is general rejoicing in the scientific achievements of the past half century, there are not wanting among us those who find a growing tendency towards materialism in the educational trend of today. Should these fears prove prophetic, the loss will be obviously greater than the gain both to the individual and to society. It can scarcely be questioned that there does exist a tendency towards materialism in premature vocational

training and in other forms of early and extreme specialization.

It is unquestionably the business of education to seek a remedy for the materialistic tendencies of the times. While there is general agreement as to this necessity, there is naturally a divergence of view concerning the direction in which remedy should be sought. Some seek it in a larger infusion of the so-called culture subjects into the curriculum. Poetry and music, literature and art, are admittedly valuable correctives and to some they seem sufficient. Others, with perhaps more justice, while admitting the value of the culture subjects in checking materialistic tendencies, seek for the effective antidote in the teaching of positive religion, while still others seek the source of culture, not so much in the subject matter of the curriculum as in the method of study employed, and they seek the remedy for materialism, not so much in a definite set of religious tenets as in the way in which all truth is held in the mind. It is pointed out that one may be a past-master in physics, chemisty or biology and still have little more claim to culture or to a liberal education than that possessed by a stonecutter or a blacksmith. Culture, indeed, consists not in the knowledge of any one subject nor in the ability to do any one thing, however valuable such knowledge or ability may be, but in the power to understand the thought and to sympathize with the work of all who labor for the upbuilding of mankind.

Culture is manifested by the quality or fiber of the mind rather than by its content; consequently, the educational tendencies which make for a development of power rather than the accumulation of knowledge lead us to seek culture not so much in erudition as in a group of serviceable social qualities.

Culture always implies a certain breadth of view. A man who is ignorant of everything outside of his own narrow specialty, who can talk intelligently on this subject only, and who brings neither understanding or sympathy to the discussion of any other topic, may be able to do good work in his chosen line but there are few who would call him cultured. He may be an effective cog in a machine which grinds out truth, subjugates nature, and builds up vast fortunes, but as a social entity his value is low, and his individual culture and capacity for pure enjoyment is still lower. His mind, cut off, for the most part, from the outlying fields of truth, becomes warped and narrowed; no one should be surprised to find him degenerating into a materialist; he may, indeed, possess genius of a certain order, but, if so, it is a genius that lies very close to insanity.

Culture, however, does not preclude specialization. On the contrary, the man who is productive in one department of scholarship will find in this circumstance a help to the understanding of the work done in other fields. While a cultured man should know something about everything and everything about something, nevertheless, culture is not directly concerned with productive scholarship; its home is in the receptivity of the mind.

Through productive scholarship, man communicates to the race the results of his own work; through receptive scholarship he is enabled to profit by the labors of all mankind. Culture requires some knowledge of a variety of subjects and the broader the range of these subjects, the broader will be the culture, but this is not the whole of culture. A knowledge of the elements of forty different sciences would not necessarily produce culture, which is primarily a quality of the mind, and it is measured

by the correlation of thought rather than by the thought itself. To the narrow specialist, the value of any statement lies in the definite picture of the thing signified which arises in his mind; to the man of culture the chief value of the same statement is found in the multitude of associated pictures which it calls up in his mind.

The production of materialism instead of culture, however, is not confined to the schools in which specialists are trained. The seeds of narrowness and materialism are sometimes sown in the early years of school life which nature ordained as the time in which the broad foundations of culture should be laid. The difference between the education that results in culture and the training that leads to materialism may be observed in the pupil of a high school quite as often as in the graduate of a university or of a technical school. It manifests itself in the way in which literature and art are studied, no less than in the study of the physical sciences. In the one case, the mind rests on the material and the concrete; in the other, it is carried out into ever-widening fields of truth and relationships. The former attitude of mind logically develops into that of the materialist; in the latter case the forces at work tend to carry the mind out beyond the realm of matter into a region where it will find no resting place until it rests in God, the Source of all truth and of all being.

Culture, in this sense, demands a wide range of knowledge, but it demands still more imperatively that all knowledge taken into the mind be incorporated into its life, that the mind be not rendered a mere passive receptacle for truth, but a living, acting organism, every fiber of which responds to each new truth with which it comes in contact.

Culture, therefore, demands a wide range of knowledge covering the fields of religion, of philosophy, of science, of literature and art, which form the groundwork of our civilization; and it demands that this knowledge be held in the mind, not as a series of discreet entities, but as one living correlated whole.

Moreover, culture connotes a training that imparts a high degree of sensitiveness and a ready control of the mental powers; the mind must be able to turn instantly from subject to subject as the necessity of the social situation demands. The cultured man is keenly sensitive to the play of thought and feeling in the social group in which he moves and he responds to it without apparent effort. However indispensable concentrated attention may be in order to reach the solution of any problem of present interest, culture demands the added power of shifting the attention with ease and grace from topic to topic so as to meet the social situation and yield pleasure and profit to the group.

While, therefore, the benefit of the individual should be taken into account in educating for culture, it is evident that the individual's highest pleasure and his greatest benefit is to be found in giving to others freely of the treasures which individual efforts have secured.

We have thus found on the cognitive side of mental life four of the essential elements of culture: (1) a reasonably wide knowledge; (2) a thoroughly coordinated knowledge; (3) a ready and easy control of the knowledge possessed; and (4) the habitual use of knowledge and mental power to meet the demands of an ever-changing social environment. But these four elements are far from constituting the sum-total of culture. We would, indeed, not be far from the truth were we to deny to each of them a place

among the chief factors of culture. Culture demands, in addition to these elements, a reasonable development of the aesthetic faculty and a normal development and control of the emotions.

The cultured man may be neither an architect nor a sculptor; he may neither be able to write poetry nor to paint pictures; but he must have an appreciation of the beautiful. We are far from denying the social advantages of "the accomplishments"; the ability to thrill the souls of others by music or song; the power to delight the eye by the products of chisel or brush; to know how to dance gracefully or to charm by perfect manners, are gifts for which anyone should feel grateful, but they do not constitute the essential elements of culture. Without being able to do any of these things it is quite possible to have the aesthetic faculty highly cultivated and to recognize beauty and thrill to it wherever it is found in nature, in art or in perfect manners.

Viewed from its emotional aspect, culture demands a reasonable development and a complete control of all the emotions. No matter what a man's endowments may be in other respects, if he be wanting in a keen and ready sympathy for the feelings, the emotions, and the attitudes of those who surround him, he cannot be considered cultured, and unless the feelings and emotions are cultivated in himself he cannot sympathize with them in others.

It is, in fact, in the control of the emotions that culture finds its severest test. In the savage and in the uncultured man any unusual intensity in the emotional stimulus causes an immediate explosion which often works as much injury to the individual himself as it does to those against whom the explosion is directed. The undesirability of such a man in society is at once apparent.

In the emotions lies the well-spring of all the strength and energy of character. This energy is one of the most precious things in life and it is precisely the function of culture to develop the conscious mechanism in such a way as to husband it and to direct it efficiently towards the accomplishment of the desired ends of civilized life. The degree of perfection in which this mechanism is developed furnishes one of the best standards by which to judge the quality of culture in any individual.

The cultured man does not willingly expose himself to the shock incident to contact with the rude, but if untoward circumstances betray him into such a situation, he will know how to control himself so as to avoid a scene. The consciousness of this perfect self-control contributes largely to that unconsciousness of self which is one of the most obvious traits of the cultured man.

There is a type of conceit that marks the braggart, and bears palpable evidence of his lack of culture. There is a self-consciousness sometimes linked with conceit, which, with almost equal certainty, marks the absence of culture in many persons who believe themselves to be possessed of exceptional advantages, either in the extent or quality of their erudition, in their beauty of face or figure, in their elegance of dress, or in their social position. This species of self-consciousness is the most obvious constituent of the vulgarity of the *nouveau riche;* it is also characteristic of the silly and the superficial.

Self-consciousness without conceit may often be found in souls possessing much refinement and many of the essential elements of culture. In such cases, however, the quality of culture is not in control; the self-consciousness dominates and is fatal to poise of character and proves to be a prolific source of pain, both to the individuals themselves and to those with whom they associate.

Culture demands a certain type of conceit; a conceit which enables a man to take himself supremely for granted and for this very reason banishes all consciousness of self. Such a man relies on himself implicitly; he knows from experience that he is not likely to be betrayed into saying or doing anything that would leave him open to the criticism of his associates. His mind is turned away from self and for this reason it is keenly alert to the actions, thoughts and feelings of his companions. It is for this reason, too, that he is always in a position to deal effectively with any social emergency that may arise. He listens where he should listen; he is always ready to divert attention from any awkward situation at the proper moment.

The conceit of the cultured man contributes in no small degree to the pleasure and to the feeling of security which is experienced in associating with him. His keen sympathy enables him to discover at once when he is not wanted and his acquaintances are thus saved the awkwardness of keeping him at a distance. On the other hand, his complete confidence in himself keeps him from taking offense when offense is not intended.

It is difficult to associate with the self-conscious without giving unintentional offense; their eyes are constantly on themselves, and they are forever looking for slights in what is said and in what is left unsaid, in what is done and in what is left undone. The pleasure that their company might otherwise give is often neutralized by the extreme care which must be taken in order to avoid wounding their over-developed susceptibilities.

The cultured man, when with his friends, interprets everything that is said and done in its best sense, and even though the word or the deed might readily bear another interpretation, this instead of wounding, serves to amuse

him, for he realizes the unintentional character of the blunder and, what is more important, he responds to the call for the exercise of his tact. His presence, consequently, tends to banish restraint and self-consciousness in those with whom he associates. By putting everyone at ease, he adds largely to the joy of social intercourse, even when he contributes but little in any direct way to the entertainment or the conversation.

The term "culture" has come to be used in various senses and to be clothed in many shades of meaning. Thus we speak of physical culture, of intellectual culture, of moral culture, and of social culture, but there is still another and a larger sense of the word, a sense in which all culture is resumed. In this sense it means the symmetrical development and the perfect control of all the powers and faculties of the individual. Through its agency, all the resources of individual life, physical, social, intellectual, moral and religious, are utilized to the fullest extent for the happiness of the individual and the enrichment of his life as well as for the happiness and well-being of the social group. Whether, therefore, we consider the good of the individual or the good of society in the conduct of the educational process, we must hold as one of the chief aims of our educational endeavor the production of individual culture. This culture, however, cannot be produced in the individual unless the broader aim of social well-being be kept constantly in the foreground.

It is evident that culture such as we are here considering is not and cannot be made a mere addition to life, or a superficial polish, or the development of any one set of powers. It is a quality affecting the whole of life: it permeates the profoundest depths of character; it

lends finish and perfection to manner; it leads man into the unreserved giving of himself to the service of his Maker and to the good of his fellow-man.

Thoughtless people not infrequently mistake for culture a certain superficial polish which may be imparted to mind and character after the process of education has been substantially completed. Acting under this mistaken idea of culture, parents sometimes send their daughters to a finishing school or give their boys a year's travel. Without undervaluing either of these means of producing culture, it should be insisted upon that culture is something deeper than this; that it sends its roots into the very depths of both mind and heart and that it is in itself as truly a conscious growth as any that may be found in the intellect, in the will, or in character.

To produce genuine culture, therefore, we must begin at the very beginning of the educative process and never cease our endeavors until the work of education has received its last finishing touch. There is no day in the child's life in which he should not be helped to grow in culture; there is no subject that he studies in which this end should not be kept in view; there is no discipline to which he may be subjected in which the effect of such discipline on his culture should not be among our chief considerations.

While we must aim, therefore, at individual culture throughout the entire educative process, this aim can never be isolated. Whatever tends to produce culture will, at the same time, tend to affect the growing and developing mind of the child in many other important respects. When, however, the mind is so trained as to result in culture, it is trained in large measure along many other most desirable lines. When the educative

process is viewed from the standpoint of culture, a number of secondary aims come into view.

To attain culture, the pupil's knowledge should be thoroughly coordinated as he receives it. The child must be taught from the beginning of his work in school to turn his mind quickly and completely from topic to topic. He should never be corrected in such a way as to develop self-consciousness, nor should he ever be exposed to ridicule or sarcasm, which, more effectively, perhaps, than anything else that is likely to occur in the school, tends to develop an undesirable self-consciousness. From his earliest childhood, he should be taught self-forgetfulness and a ready sympathy with others, nor can we begin at too early a date to give him a realization of the value of self-control under all circumstances. He should be taught that an appreciation of the beautiful in nature and in art is of quite as much value as is the ability to write books or to build houses. Where a training of this kind has been given to the child and to the youth, finishing schools and travel will impart their full meed of benefit in rounding out and in completing an education that not only fits him for effective work in his chosen field of action, but also prepares him for life in the fullest sense of the term.

In the older social and economic conditions, the children of the upper classes alone were given a training for the express purpose of producing culture, and today, even in our democratic society, this ancient view sometimes finds expression. Secondary and higher education still have an inherited tendency to meet the needs of a leisure class and the disciplines are accordingly designed, in many instances, for the production of culture, while our elementary schools, manual training and vocational schools, are frequently thought of as appropriate schools

for the masses in which the children should be taught only those things which may prove useful in the ever-present struggle for material gain.

Viewed in the light of modern psychology, the culture development that begins with adolescence is likely to lack depth and sincerity and the resultant culture is likely to be apparent rather than real. No amount of study of Latin or Greek or Mathematics will, of itself, turn a vulgar, savage youth into a cultured man. If, therefore, the children of our wealthy citizens are to acquire culture through the school, the process must begin, not in the secondary school, but in the primary grades of the elementary school.

The educational aim in a democracy should be the highest good of all the people. Every hidden resource of power and uplift in the nature of the child, whether of the rich or the poor, should be developed and made to yield its blessings for all the people. The good of society demands that culture spread throughout the entire social body and, in these days of lengthening leisure for the toiling masses, an effective culture which will turn leisure hours to individual and social betterment and happiness is urgently demanded.

If the production of culture were bound up with the teaching of the classics and unattainable in any other way, it would, of course, be necessary to abandon all hope of producing culture in the masses through our educational endeavors, but there is a growing realization among educators that any valuable educational material may, if properly handled, be made to produce choice fruits of culture. The sciences and the practical arts which are so imperatively demanded by our present industrial and economic conditions, may be made to yield a fruitage of

culture not less choice than that produced by the grammar drills which formed the staple of the secondary training given in the avowedly cultural schools of the past. And even when the classics are taught, as they should be taught, so as to bring the child into vital relationship with the civilization which produced them, their cultural value is not necessarily higher than that which may be attained through other sources which should be within the reach of our children in the elementary schools.

CHAPTER XVI

EDUCATION FOR CITIZENSHIP

There exists today, as there always has existed, a wide divergence of view among political thinkers concerning the nature and functions of the state. In the education that fits for citizenship there will naturally be found a similar want of uniformity. Until we determine the nature and functions of the state in any given country, it will not be possible to determine the nature of the education that should be given to the children of the people to prepare them for citizenship. It is scarcely to be hoped that a system of education could be devised which would be so plastic as to meet the requirements of the state as conceived of by Bismarck and Windhorst, by Babel and von Sturm, by Locke, Homboldt and Hobbes.

Hobbes believed the state to be omnipotent. In his political philosophy the state gave validity to all laws, sanction to all religions, and retained the ownership of all property. An education that would prepare for citizenship in this state would unfit for citizenship in the state as Locke conceived it. He opposed natural law and the law of humanity to the laws of the statute book and proclaimed the right of the individual to resist any state measure which aimed at doing more than to protect life, liberty and property. Humboldt denied the state the right to do anything looking towards the material welfare of the citizen and he consequently denied to the state the right to educate its future citizens and the right to make any provision for education.

Notwithstanding the fact that Treitschke, who is not without disciples in many countries at the present day,

believed that the mass of the people should be kept in a low state of intellectual development, to the end that toilers may not be wanting and that an intellectual aristocracy may have leisure to think and work for the good of the country, the demand for universal education has become general in Christian states.

The Christian socialists of England, while not indulging in the extreme view which maintains that the tramp and the illiterate should have equal power in shaping the destinies of the nation with men of virtue and culture, hold that the equality which should be maintained consists in equal possibilities for all men to develop their capacities and talents. They hold that the individual must be lifted above prejudice before commercial or political freedom can benefit him; they demand in each citizen who has a voice in shaping the destiny of the state a largeness of outlook and a self-control which will extend all the privilieges of fraternity even to those who hold opinions opposite to their own. To maintain a citizenship of this character, universal education is obviously necessary.

History abundantly supports the statement that the destiny of the state is intimately bound up with the education of the citizen. Plato held that no state can thrive which does not unceasingly endeavor to improve the individuals who constitute it, and he naturally attached great importance to the proper education of the citizen. He did not, however, assign to the state the duty of educating, but permitted this to be exercised by private individuals under state control and state guidance. Much as he exalted the state, this philosopher never failed to recognize the rights of the individual nor to make provision for his development and education. Under the

influence of such teaching, it is not surprising that Athens rose to so high a level of pure democracy.

"The Spartan system of education," on the contrary, "was socialistic and utilitarian, designed solely for the benefit of the state and not for the individual. The boy was systematically trained for his place as the defender of the nation, and the girl for the office of mother to give new warriors to her country. Such a system in a despotic socialistic state was successful in achieving its purpose for it produced a nation of warriors able to defend the home and ready for conquest abroad, but it could not go further, and when that rigor of training ceased, and the conqueror appeared, it was bound to disappear with the nation itself. It incorporated no religious teaching nor sound moral training, and it made no provision for the pursuit of the arts and sciences. The all absorbing and pervading spirit of patriotism and devotion to the state which dominated everything, could not supply for the elements in training which develop character and strength of mind in the individual, and in the social body, and upon which the real stability of a nation depends."[1]

The views of the nature and function of the state maintained by conservative thinkers of the present lie between these extremes, and the views concerning proper civic education take on a corresponding modification. "The function of the state," says Paulsen, "is to realize the vital interests of the community, first of all by protection against foreign and civil enemies, and then by action in those fields where the energy of the individual is insufficient or would be opposed to the interests of the community."[2]

[1] McCormick, Hist. Educ., Washington, 1913, p. 33.

[2] Paulsen, System der Ethik, 8th edition, Vol. II, p. 527, cf. also ibid., 513. Quoted by Kerschensteiner, Ed. for Cit., p. 17.

There can be no dispute concerning the duty of the state to protect the public against its enemies, whether internal or external, and in the preparation of the individual citizen for this duty we have the first clearly defined element of civic education, however, much remains to be done towards determining what this training shall consist of. In a military state it will naturally consist in large measure of military training; in an industrial state it may well take on such a character as will enable the individual to cooperate intelligently in the upbuilding and preservation of the industrial independence of the nation; and where the citizens are sufficiently enlightened to perceive that the best good of a nation is to be attained along the lines of intellectual, aesthetic and religious uplift, education for effective citizenship will have a much larger infiltration of cultural elements.

There is much more difficulty in shaping an educational policy to meet the requirements of the second part of Paulsen's definition of the functions of the state. There is always present a conflict of interests between individual citizens and groups of citizens. The state action that favors the manufacturer is likely to work hardship to the farmer, and where the territory is large, a public policy that serves the interests of one section is likely to work hardship to another.

It is the duty of the state in a democracy to maintain the interests of the whole people: although the majority governs, the rights of the minority must not be ignored. Action for the greatest good of the greatest number is a pernicious fallacy. The greatest good of the minority may at times be identified with the greatest good of the whole state; whereas the greatest good of the majority may work deep and lasting injury if it is made the norm and rule of

state action. The state needs a small group of men with the highest possible training to enact its laws and to administer them wisely. A public policy that would be shaped by the intelligence of the majority of voters in a country like the United States would lead rapidly to demoralization and to arrest of the forces making for civilization.

Considerations such as these lead to the formulation of another element in civic education, viz., each citizen should receive an education which will fit him for the discharge of his duties towards the state. One may serve the state by his skill in manufacture which contributes towards the prosperity of the country; another may best serve the interests of the nation by undergoing a long course of training for the legal profession so that he may be able to contribute to the wisdom and justice of our laws and to their equitable administration.

A democracy, more than any other country, demands inequality in the education given to its members. Those who are especially gifted by nature must, for the public good, receive such a training as will fit them for leadership, and this training is neither possible nor necessary for the rank and file of voters whose highest duty it is to second the efforts of the leaders whom they conscientiously select from the ranks of those who, by training and virtue, are available.

The chief difficulty encountered in a democracy centers round the determination of vocation. Who will be selected to fill our administrative offices? Who will pick out the boys who are to receive a training that will fit them for the bench? Who are to be our physicians and surgeons? Who our priests and teachers? None of these decisions can be based on birth or social strata in

this country, as they may well be in countries that still preserve social laminae. As a result of this condition, it will be seen that universal education is demanded for the good of the state. All the children should receive such an education as will fit them to proceed along the lines of their native abilities when the proper time for differentiation comes. The best interests of the nation demand that education search out all the ranks and files of our children to discover if possible those who are especially gifted for the higher walks of life. This general education should be maintained until the advent of adolescence begins to manifest aptitudes and vocations.

General education is demanded by the interests of the state for many other reasons besides that of giving opportunity to determine vocations to the higher walks of life. The vital interests of the community demand that every citizen should lend to the state intelligent cooperation in the making and enforcing of just laws, in the administration of public affairs, and in the promotion of brotherly love and genuine cooperation among all the elements of the population. The imparting of skill which will enable the individual to make his contribution to the material well-being or intellectual advancement of the people is the specific aim of vocational education and this is indeed included in education for citizenship.

Kerschensteiner maintains that efficiency in one's chosen trade is not only demanded for the good of the whole people, in so far as it contributes to industrial and economic independence, but that in the training for, and in the exercise of this efficiency, the other qualities necessary for citizenship may be most effectively secured.

"As a means of insuring personal efficiency, and so of enabling a pupil to take that part in society which his

capacity warrants, the first place must be assigned to a training in trade efficiency. This is the *conditio sine qua non* of all civic education. But in the prosecution of this object, in the training which inspires love of work and results in effectiveness of effort, precisely those civic virtues are developed which must be regarded as the foundation of all higher moral training,—conscientiousness, diligence, perseverance, self-restraint, and devotion to a strenuous life. From a consideration of the interdependence of individual interests it may be possible to develop the highest of civic virtues,—self-control, justice, and devotion to the interests of the community. How far education will be helpful here depends upon the extent to which our educational arrangements make it possible for the pupil to be actively related to his environment and to apply the sympathetic interests we have aroused in him. For action is the only foundation of virtue."[1]

Over and above the skill which the individual should possess in his vocation, the welfare of the state demands that he be dowered with certain moral qualities among which the following six are conspicuous:

1. The faith of man in his fellow-man lies at the foundation of a democracy. Without it our social institutions and the state itself must cease to exist. The son who has no belief in his mother's virtue beyond that which might be established by evidence that would convince an indifferent or hostile jury, is unworthy to bear the title of son. The husband who has no belief in his wife, and the wife who has no belief in her husband, beyond that determined in a similar way, render marriage futile and home impossible. The success among the people of any movement for freedom or uplift depends upon the faith of the

[1] Kerschensteiner, Educ. for Cit., Chicago, 1911, p. 24.

people in their chosen leaders. In our courts of justice, our property rights and even our lives rest upon our faith in the truthfulness of witnesses and in the integrity of jurors and judges. Destroy public confidence in our merchants and in our bankers, in our social and religious leaders, and in our public officials, and all the institutions of the democracy will collapse.

Moreover, unless the child possesses a faith in his teacher which will make it possible for him to accept without question the wisdom of the ages as his guide in the building up of his own character and in the formation of his attitude towards his fellow-man and the institutions of civil life, it will be impossible for the adult generation to assimilate and to bind to itself in solidarity the succeeding generation. The state would thus be unable to perpetuate itself. From considerations such as these, it is evident that the natural faith of man in his fellow-man must take its place among the fundamental qualities demanded for worthy citizenship.

2. Hope is scarcely less necessary to the citizen than is faith. Through faith he is put into possession of the treasures accumulated by the generations that have passed away. Through hope he anticipates the harvests of the future. Faith broadens his view and clears his understanding, while hope supplies the reason for putting forth his energies and spending himself. A man marries and founds a home in the assured hope of its permanence. He plants his crop in the hope of reaping the harvest. He builds railroads, develops commerce and establishes factories in the hope of reaping the legitimate reward of his investments. Faith in the permanence of the social order is the source from which hope springs, and hope is the effective force that carries the past and the present

over into the future. Take away from man hope, and not only will his own life become vain and empty, but all progress of the race will come to an end, and all that has been achieved by civilization in the past will disappear. It is the hope of what the future may bring that moves every wheel and presses every spring of action in human life.

The propulsion moving man to create the future out of the present and the past has not inaptly been described as the mother instinct of the race. "Motherhood is the law of the universe. The whole duty of man is to be a mother. We labor; to what end? The children,—the woman in the home, the man in the community. The nation takes thought for its future; why? In a few years its statesmen, its soldiers, its merchants, its toilers, will be gathered unto their fathers. Why trouble we ourselves about the future? The country pours its blood and treasure into the earth that the children may reap. Foolish Jacques Bonhomie, his addled brain full of the maddest dreams, rushes with bloody hands to give his blood for Liberty, Equality, Fraternity. He will not live to see, except in vision, the new world he gives his bones to build—even his spinning, word-whipped head knows that. But the children! they shall live sweeter lives. The peasant leaves his fireside to die upon the battlefield. What is it to him, a grain in the human sand, that Russia should conquer the East, that Germany should be united, that the English flag should wave above new lands? The heritage his fathers left him shall be greater for his sons. Patriotism! What is it, but the mother instinct of a people?"[1] By hope the parents live in anticipation the

[1] Jerome, Second Thoughts of an Idle Fellow, New York, 1906. p. 272–3.

lives of their children and rejoice in their joys. They are carried out of the sordidness of the present with its selfishness and greed and, by living through hope in an ideal world, are purified and ennobled. But to produce this salutary effect, hope must not only spring from faith, but it must be accompanied and controlled by love.

3. Man's love for his fellow-man is, in fact, the fundamental principle on which Christian civilization rests. We have only to look at life below the human level to learn that no species may maintain itself in the struggle for existence save through cooperation of individual with individual. Individual against individual is a principle of disintegration and death even among the lower forms of life. The extent to which the principle of cooperation obtains measures the progress of every species. The great struggle for existence to be found on all planes of life is the struggle of species with species rather than of individual with individual. Without that solidarity between the members of the same generation and between successive generations which is secured through instinct, no species could maintain or perpetuate itself. In nature, the individual is ruthlessly sacrificed to the well-being of the species, and in the history of mankind, whenever the intellect was sufficiently developed to enable the individual to escape this sacrifice for the welfare of the race, man died unless a sufficient motive was found to take the place of the atrophied and conquered instinct which makes so effectively for solidarity in the mere animal.

The principle of cooperation as operative in the lower forms of life is not confined to the limits of the genera or species. Naturalists delight in calling attention to the mutual helpfulness existing among forms of life which occupy widely divergent places in nature. Darwin pointed out

the dependence of red clover upon cats. The red clover is fertilized by the bumble bee without whose help it cannot perpetuate itself. The field mice feed on the bumble bee's larvae and its stores of honey and thus the bumble bee would become extinct were it not for the help offered by members of the cat family in keeping down the field mice. Insects are necessary for the perpetuation of the flowering plants and the plants are necessary as a food supply for the insects. Birds are supported in some measure by the seeds of plants and they make return for these necessary stores of food by keeping down insect life and thus preventing it from destroying vegetation. The earthworm prepares and renews the soil for plant life. The bacteria return food stuffs to the general store from which other forms of life may draw the needed nourishment. Thus the Creator makes all His creatures cooperate in carrying on the work of life, and what is done through instinctive and unconscious forces for these lowly forms man through education must learn to do for himself.

The Christian State is bound together in solidarity by the internal bonds of faith and hope and charity instead of by the coercion of armed forces. In Christian civilization all social institutions are built upon the intelligence, the emotions and the will of the individuals. The home which is created by the faith and hope and love of one man for one woman and of one woman for one man is the foundation upon which the welfare of the whole social body rests. The Christian home is indispensable for the maintenance and proper upbringing of children. The close contact of the child with the daily manifestation by Christian parents of self-oblation and self-sacrifice is required to build in the child's soul the unshakable foun-

dations of faith and hope and love. These virtues, implanted in the home, must be broadened by the school until they embrace the entire nation. In the Christian state the citizen must believe in his fellow-man; he must labor for his interests and for the interests of the generations to come after him. If police force is required, the necessity arises from the failure of education to form all the children into worthy citizens and force must be invoked to accomplish what should have been achieved in a far higher degree by the fundamental virtues which should characterize the citizen.

The state, in educating for citizenship, may not proceed effectively with the work of broadening the faith, hope and charity of the individual beyond the national limits. The Church, however, knows no boundaries of color, race or creed. She aims at lifting into the consciousness of each individual an effective recognition of the Fatherhood of God and the brotherhood of man. The cooperation secured by the Church among the children of men may be likened to the cooperation of the divers forms of life pointed out above; whereas the cooperation called for to perpetuate the nation may be likened to the cooperation among the members of the same species.

Competition, or the struggle of individual with individual and of group with group, moves under the banner of selfishness and greed, which are always near the surface, and shock the sensibilities of gifted souls. Christianity, drawing to itself the finer elements of human nature and the choice souls among the children of men, seeks unceasingly to supplant competition by cooperation. The love of the parent for the child, acting through the child's instinctive tendency to imitate, shifts the center of gravity from the child's self to the group. It teaches

him to strive for the good of the larger self. Upon the success of the parents in this important educative function, reinforced by the school and the church, rests the welfare of the home, the city, the nation, the church and humanity itself.

The element of progress contained in cooperation as opposed to competition is everywhere manifest in Christian civilization, in art and literature, in medicine, in scientific research, in public libraries and museums, in public parks and public highways, and the principle is receiving a most striking illustration in the economic and industrial revolution which is carrying us from a tool to a machine civilization.

Faith, hope and charity—these three virtues constitute the foundation of Christian character and they remain the foundation of citizenship. No one of them may be dispensed with without disaster. To produce these virtues in the children and to cultivate and develop them to a high degree of efficiency must, therefore, be included in all education for citizenship, but in effective education for citizenship these fundamental virtues should be supplemented by at least three additional virtues: disinterestedness, reverence for law and self-control.

4. The worthy citizen must ever hold the public good above all private gain. The good which he shares with his fellow-man must appeal to him more strongly than the good which ministers to his own individual need. He must realize that what he does for others goes out in ever widening circles and is likely to flow onward to enrich future generations; whereas the good directed towards self is likely to end there. This principle holds good even in material matters but it finds its fullest fruition in the things of the mind which like the quality of mercy, blesseth him that gives and him that takes.

Were this virtue of disinterestedness well developed in our men in public life and in public office, bribery, fraud and graft would be unknown in our midst. As it is, men may readily be found who are willing to die for their country, but it takes years of effective training to produce men who will live for it. The sudden awakening of the martial spirit or a wave of popular sentiment, may sweep men from their firesides to the battle front, but education for citizenship must do more than this: it must give the individual the power to live for his country and exert himself in its behalf day by day. He must learn to labor unceasingly for the public welfare without the aid that comes from a tide of public feeling.

The native impulse, with its note of self-oblation and self-sacrifice, which leads to parentage, must be converted by education for citizenship into a permanent, constantly operative principle of conduct. It has been questioned, and it is still open to question after the nation-wide experiment that has been made in our midst during the past seventy-five years, whether this result may be achieved without invoking God and a belief in supernatural sanction in which alone the individual may find himself and the public brought into unity, but whatever results may be expected to reward the endeavor, schools of every character must strive to lead their pupils towards this ideal.

5. The quality of obedience to law sufficed for the masses where government was conducted by the aristocracy, but in a country like our own where the government is "of the people, for the people and by the people" the citizen must be educated in a three-fold capacity to support law. He must be trained to take his due share in the enactment of just and wise legislation; he must lend

his support and cooperation to the judiciary and executive branches of the government; and he must obey loyally and help to secure the obedience of others to the existing laws. Education for citizenship must, therefore, include among its aims the development in each individual of qualities which will enable him to vote intelligently and induce him to vote conscientiously for men and measures that seem calculated to promote the public good. The school must also aim at producing men of fine ability to fill public offices and men who will loyally support the educational efforts calculated to secure the greatest freedom of selection and the greatest efficacy in educating public servants.

6. Finally, the citizen must be trained to curb his own appetites and to subjugate his own desires so that he may labor for the public good and work no injury to his fellowman nor interfere with any right or privilege possessed by another. Each individual must learn to govern himself and the kingdom of his own passions before he is fit for citizenship and before he may be safely entrusted to participate in the government of others.

To educate for citizenship, therefore, means much more than to equip the individual for economic efficiency or to develop in him those qualities which may minister to his selfish pleasures and aggrandizement. It means, chiefly, the production and development in the children of the six virtues enumerated above. This, in fact, is what is properly understood as the scope of the moral teaching which is so universally insisted upon as the first duty of the school. The public school does, indeed, aim at the development of these virtues, and educational leaders in our public school system have manifested great earnestness in their endeavors to secure effectiveness in this respect.

The chief difficulties encountered are two: the want of adequate motive and the fact that these virtues cannot be dealt with in the formal curriculum as we might deal with mathematics or geography. The schools may, and do, teach history and stress particularly the history of our own country. The children's admiration may be called forth for able and disinterested statesmen, for military heroes, and for generous deeds. They may be instructed in the history of our government and may be led to appreciate the difficulties that were encountered in the endeavor to secure national well-being together with large individual freedom. All this is well, but there are many educators in our midst who refuse to accept it as sufficient, and, indeed, this refusal finds support in the meagerness of the results thus far achieved.

Part III

Educative Agencies

CHAPTER XVII

THE HOME

It is a primary function of education to adjust each individual child to the environments in which he is to spend his adult years. These environments are various in character and adequate adjustment to them on the part of the individual implies a certain control over them as well as a control over self.

In educating for economic efficiency, the child is being adjusted to his physical environments, and, while such adjustment is indispensable, the higher elements of his nature are not usually directly involved in the process. Man, however, is a social being, and it is in his varied social relationships that his higher vital powers find expression.

Society differs widely in constitution at different times and among different peoples. When, therefore, we speak of educating for social efficiency, we mean that the educative agency seeks to develop such social qualities in the individual as will enable him to contribute effectively to the social well-being of the people among whom he may live.

In like manner, education for individual culture prepares, not only for individual well-being and happiness, but for the happiness and well-being of any social group with which the individual may come in contact. Adequate adjustment to social environment, however, demands more than this general preparation. The individual must be adjusted to the institutions on which Christian civilization rests. These are chiefly the home, the state and the church.

The place and importance of the family in the social fabric have not remained constant. The Roman familia did not always consist merely of husband, wife and children. It was composed of a group of persons subject to the same family head and frequently included not only sons and daughters, but daughters-in-law and the grandchildren by sons, etc. The family in modern society is much more independent than it was in ancient and primitive communities where it was usually directly subordinate to the clan.

From the beginning, the family consisted essentially of one father and one mother united in a permanent union, and their children: "Wherefore a man shall leave father and mother, and shall cleave to his wife: and they shall be two in one flesh."[1] This ancient charter of the family was reaffirmed by Christ and made a part of the Christian dispensation: "Therefore now they are not two, but one flesh. What therefore God hath joined together, let no man put asunder."[2]

The family has not always remained true to this ideal. Even among the Chosen People polygamy gained a foothold, and among pagan and primitive peoples polyandry, polygamy and promiscuity made their appearance. Moreover, among pagan peoples, as well as among Christian peoples who have drifted from the unity of faith in the Catholic Church, marriage has not always remained indissoluble. Nor did the rights of wife and children always receive adequate recognition and protection in the ancient world.

"The ease with which husband and wife could dissolve their union constitutes one of the greatest blots upon the

[1] Gen. ii, 24.
[2] Matt. xix, 6.

civilization of classic Rome. Generally speaking, the position of woman was very low among all the nations, civilized and uncivilized, before the coming of Christ. Among the barbarians she very frequently became a wife through capture or purchase; among even the most advanced peoples the wife was generally her husband's property, his chattel, his laborer. Nowhere was the husband bound by the same law of marital fidelity as the wife, and in very few places was he compelled to concede to her equal rights in the matter of divorce. Infanticide was practically universal, and the *patria potestas* of the Roman father gave him the right of life and death over even his grown-up children. In a word, the weaker members of the family were everywhere inadequately protected against the stronger."[1]

Christ not only restored the unity and indissolubility of the family, but, by raising the contract from which it springs to the dignity of a sacrament, He "placed the Christian family itself upon the plane of the supernatural. The family is holy inasmuch as it is to cooperate with God by procreating children who are destined to be the adopted children of God, and by instructing them for His kingdom." The particular functions in the Christian family of husband and wife who, by the sacrament of matrimony are placed on a plane of real and definite equality, "are determined by their different natures, and by their relation to the primary end of the family, namely, the procreation of children. Being the provider of the family, and the superior of the wife both in physical strength and in those mental and moral qualities which are appropriate to the exercise of authority, the husband is naturally the family's head, even 'the head of the wife,'

[1] Ryan, Art. Family Cath. Encyc.

in the language of St. Paul. This does not mean that the wife is the husband's slave, his servant, or his subject. She is his equal, both as a human being and as a member of the conjugal society, save only that when a disagreement arises in matters pertaining to domestic government, she is, as a rule, to yield. To claim for her completely equal authority with the husband is to treat woman as man's equal in a matter in which nature has made them unequal. On the other hand, the care and management of the details of the household belong naturally to the wife because she is better fitted for these tasks than the husband. . . .

"When the conjugal union has been blessed with children, both parents are charged, according to their respective functions, with the duty of sustaining and educating those undeveloped members of the family. Their moral and religious formation is for the most part the work of the mother, while the task of providing for their physical and intellectual wants falls chiefly upon the father. The extent to which the different wants of the children are to be supplied will vary with the ability and resources of the parents. Finally, the children are bound, generally speaking, to render to the parents implicit love, reverence, and obedience, until they have reached their majority, and love, reverence, and a reasonable degree of support and obedience afterward."[1]

In adjusting the child to his present and future position in the family, account must also be taken of the relation that should be maintained between the family and other social institutions, such as the Church and the State. In the Christian state the family is the social unit and the basis of civil society. The state is, of course, concerned with the individual, since it exists, as do the

[1] Ryan, *op. cit.*

family and the Church, primarily for the welfare of the individual, but the state should deal with the individual as a member of the family, and where the state ignores or neglects the family and deals directly with the individual as such, the natural result is the weakening and disintegrating of the family, which, in turn, works serious injury to the individual and to the state.

In Christian society the family constitutes the natural and constant environment for the great majority of individuals, both old and young. The family is the chief agency in shaping individual life, both through the natural stimulus to activity which it offers to its adult members, and through the educational facilities which it affords for the formation of character. The best interests of the state, therefore, no less than the essential well-being of the individual and the home, demand that the parents be clothed with full authority in the management of the affairs of the home. They must have complete control over the rearing and the education of the children, subject only to such state supervision as is needed to prevent neglect of the children's welfare. The state is, in fact, invading the rights of the home whenever, without necessity, it interferes in family life by providing for the material wants of the children, by removing them from parental influence, or by specifying the schools which they must attend. If the poverty of the parents renders it necessary that support of the children should be provided by the state, the interests of the family demand that such assistance should come through the parents. If the poverty of the home in educational material be such as to render outside assistance necessary, this, likewise, should come with due recognition of parental authority.

In Christian society the family is the fundamental

educative agency. The parents are dowered with special sacramental graces to enable them to discharge worthily the function of teachers towards their children. When conditions economic and social are such as to render it impossible for the home to carry on, unaided, the education of the children and the school is rendered necessary, parental authority should follow the child and take its due place in controlling the character and activities of the school.

The educational possibilities of the industrial home were very great. The constant presence of both parents and of the adult members of the home group furnished opportunity for constant instruction of the children in all the practical affairs of life, while the life-sustaining industry carried on within the precincts of the home furnished material for physical education and sensory-motor training of a high order. The will of the child was strengthened and his character developed by the responsibilities which he gradually took over and by the atmosphere of love in which he lived. The real interest which called forth his efforts acted as a powerful stimulus in developing his various faculties. Day by day apperception masses were formed which enabled him to understand literature and history and to take over the valuable lessons which they afford.

Under circumstances such as these, the school might well confine its efforts to formal education and the school arts. And if it at times might profitably have ventured further in acquainting the pupils with the content of ancient civilizations, it was not called upon to offer a suitable training for home life, for this was given far more effectively in the industrial home than it could be given in the school.

Nor was the training given there confined to the efforts of preparing the individual for worthy home life; it was much more intense in character and had a much broader outlook. It quickened and deepened the happiness of every member of the group. Husband and wife, animated by a common interest, labored together and spent their lives in loving companionship; in close touch with nature they enjoyed freedom and peace and protection from temptation and danger while they lived their own childhood and youth over again in the children that grew up about them.

The children, spending their lives in the atmosphere of parental love, were not only preserved from the many dangers which threaten the unprotected life of childhood, but they learned day by day the meaning of love and the happiness which flows from it; day by day they learned to love God as the common Father of all men and to love all men as their brothers. Thus the Golden Rule tended to become the rule of their life; religion deepened its hold upon the imagination and the heart and the child naturally matured into worthy citizenship.

The industrial home was created, in large measure, by the family and it provided a suitable environment for family life in all its phases, but the industrial home is a thing of the past. However deeply we may regret its loss, it is not within the limits of our power to recall it. All that the state or the church or society at large can do is to employ such means as may be available to protect the family under the new conditions and to help it to create the new environment which its salvation demands. In this work the school seems destined to play an important rôle.

In the rapid transition through which society is passing,

from a tool to a machine civilization the home is affected more profoundly, perhaps, than any other social institution. The family is caught up in the vast wheels of modern industry where its members too frequently eat the bread of discontent. Husband is separated from wife, child from parent, sister from brother, and each and all fill out the weary hours of toil beneath the eye of a taskmaster who has no power to minister to their needs; who has no father's heart of mercy; who has no mother's solicitude for the salvation of the child's soul.

In the social confusion resulting from this industrial revolution, men and women sometimes become bewildered and may be found fighting against their own best interests, regarding themselves as competitors and losing sight of the fact that the interests of man and woman must forever remain inseparable. The life of each is incomplete without the other; they are complements one of the other, not duplicates. The deepest law of their natures makes their interests identical and renders it forever impossible for them to be rivals or competitors.

The greatest need of the family in the present is a new home which will be so constructed as to meet effectively the conditions of the new economic and social world in which it must live and in which it may find protection from the dangers which threaten the very fountains of race life.

Man and woman must labor together in building a new home to meet the conditions of the new world in which they find themselves. The home of the past was industrial; the home of the future must be cultural. The new organization of industry has resulted in lengthened hours of leisure that should be spent in the home in the pursuit of the things of the mind. The companionship

in the work of their hands which husband and wife have lost in the passage of the old home, they must find again in the cultivation of their minds and hearts. In the past, the children grew up beneath the sheltering roof of home and their conduct throughout life was governed by local customs and family traditions. The home of the future must develop high ideals in the minds of the children; it must form their characters at an early age to such strength that they may be able to face alone, before they reach maturity, all the wild storms of temptation and passion. The home of the future must breathe a charm so potent that it will gather to its bosom each evening the dispersed and wearied toilers of the day. The home of the future, even as the home of the past, must be the sanctuary of life and the dwelling place of love. In the home of the future the mind must find room to grow in truth and beauty; in it there must be an atmosphere of refinement and culture. Beauty must cover it with her mantle and courage must protect it with his shield.

In the development of institutions, as of individuals, the prevailing trend is from the simple to the complex, from the homogeneous to the heterogeneous, from the latent to the explicit, but both in the individual and in the institution profound metamorphoses occasionally take place wherein the general trend seems, at first sight, to be reversed. The exception, however, is only seeming, and when a wider view is taken it will usually be found that the reason for the apparent exception lies in the fact that the transformation in question affects a wider group than the one under immediate consideration.

Thus, the trend at present would seem to be towards the simplification of the home. The various industries that formerly were found within its precincts are now re-

moved. The apprentice and the laborer are frequently absent. The father and the older sons and daughters are away from home during a greater portion of the waking hours of each day. The education of the children is more completely handed over to the school. At first sight, therefore, the home would seem to be greatly simplified and greatly weakened. There is undoubtedly a redistribution of labor made from the standpoint of a larger economic unit than the family, as a result of which the home takes part in the usual differentiation of structure and specialization of function. The division of social function within the home and without it has been altered and the old assignments of duty to the several members of the home is no longer practicable.

In the present order the home has fewer ends to attain, but it should attain these ends more effectively than they were attained in the home of the past. The first clear line of division affecting the transformation of the home is that which separates the industrial process from the vital functions of the home. Formerly the home was the social unit and the economic unit. Today, it has ceased to function as the economic unit and all its vitality must manifest itself in its capacity as the social unit. The business of the family today is the perpetuation of the race and the development of life to its highest level. The freeing of the home from the processes that minister to the physical necessities of life should enable it to build life itself much more effectively.

The high plane of life attained by the mammal is due chiefly to the fact that during all the long series of developmental changes the individual is supported by the parent and allowed to devote all its available life-energy to self advancement. In like manner, the home, freed from

the necessity of engaging in bread winning processes, should be able to secure a higher development of the mental and moral life of its members. In the early days of the transformation, however, we should expect to find stress and strain and much difficulty in adjusting the home to its new function.

In the first place, the differentiation called for in the metamorphosis of the home removes the father further than ever before from the center of the home influence and more than ever places the burden of home-making and home development upon the mother. In their social and economic functions, man and woman have been separated from each other by a greater distance than that which prevailed in the past; at least this is true of the married man and the married woman. The unmarried woman has not yet found her place in the new industrial world, and she frequently appears as man's competitor. It is needless to point out the essential transitoriness of this state of affairs, for if woman's business is, more specifically than heretofore, homemaking, she must receive adequate preparation for this through suitable training and specific employment during the years antedating marriage.

Society is not advanced by placing woman by man's side in the industrial arena of the present. If the social revolution through which we are passing is to mean advance for the race, it must result in a sharper differentiation of the functions of man and woman. Man is tunnelling the mountain and bridging the ocean; he is ransacking the bowels of the earth for its treasures; he is converting the inaccessible wilderness into busy marts of trade; he is banishing the thorn from the cactus and the seed from the grape and the orange. In none of these enterprises does he stand in need of woman's immediate

cooperation. Her help is still demanded, but it should be directed towards the enhancement of life and the preservation of its ideals. Woman's part in the progressive movement must be that of creating the home of the future. In this dwelling place of the family she must preserve the sacred fires of religion and culture, and she must save man from materialism and from the worship of the golden calf. Woman must build a home in which man will find rest from his toil, consolation in his sorrow, strength to battle with temptations, courage in the midst of disaster, and companionship in the highest aspirations of his soul. If she fails in this, all her other achievements are valueless. It will profit nothing that she should explore the hitherto undiscovered regions of natural truth, that she should write books or paint pictures, that she should help man to build more bridges, or to construct more high buildings, to reclaim desert places, or to accumulate more millions, for none of these things have value in themselves. Unless they can be bent to the higher purposes of life, they constitute only impedimenta and hindrances to real progress; they are in their very essence means to an end and that end is the enrichment of life which, in the present order of things, is entrusted to woman more than ever before.

Of what value will all the material achievements of the age be if, in the onward rush of material prosperity, we are left without homes in which the children may grow in strength and beauty. If the race were to end with this generation, it has been asked, "Think you we should move another hand; the ships would rot in the harbors; the grain would rot in the ground; should we paint pictures, write books, make music, hemmed in by that onward creeping sea of silence?"

When the last word is said, the welfare of the child is the goal of all human endeavor and the measure of all human achievement. It is for him that homes are created, and it is for him that we all labor, and it is for his sake that man and woman are joined together by nature in the bonds of undying love, and it is for his sake, no less than for the father and mother, that the marriage contract was elevated to sacramental potency by Jesus Christ. The home of the future, therefore, even more completely than the home of the past, should be built to minister to the needs of childhood, and woman must be formed by all the educative agencies in society to preside over this home worthily.

One of the gravest problems confronting educators today is to determine the education woman should receive to enable her to build securely a home that will meet the present social and economic conditions. The inadequacy of the training that fitted her for the home of the past is at once apparent. The lines along which her education should be conducted must be determined by her nature and by the work that awaits her, nor will it do to shape her education too narrowly for the work that she is to perform. We must not lose sight of the fact that while performing her duty in the home she must also be enabled to retain her place by man's side in the intellectual development which results from the experience of life.

The progress of science that has in our day so transformed the outer world must in her hands bring about a similar transformation in the home. The manual labor demanded by the economic conditions of the past must, in our day, be transformed and lifted to a higher plane through a practical knowledge of domestic science. The hours that are thus saved by the mother from toil must

be spent in the adornment of the home, in the pursuit of literature and art, and in the wider intellectual and moral interests that are shaping the course of advancing civilization.

Training of this character is demanded in order that the wife may retain her place by her husband's side and may preserve the unity of family life, but her chief function must remain, in the future as in the past, the procreation and education of children. In present social conditions the intellectual and spiritual welfare of the children is entrusted to the mother much more than it was in the past and her training should fit her for this added obligation. The mother should understand the forces that are playing upon the unfolding lives of her children and the environment into which they must enter on reaching maturity so that she may wisely preside over their physical, mental and moral upbringing.

The differentiation that has been wrought in the functions of husband and wife calls for a proportionate differentiation in the educational process to which each in the making must be subjected. For the preservation of intellectual and moral companionship between husband and wife, a basis of unity must be maintained in their education. But in our endeavor to secure this we must not lose sight of the specific differences in aim which should govern the education of men and women.

It is quite evident that no education can be too high or too good for woman, but her education must be a development of all that is best in her own nature. An attempt to mold her into the likeness of man must always fail, since their natures differ as profoundly as does their work in the world. This truth should have governed woman's education in the past, but present circum-

stances demand still more urgently that it be recognized in shaping woman for her chief work in the home of the future.

Under present economic conditions most women must labor for some years away from the confines of home before they undertake to build homes of their own. It does not follow, however, that the needs of the future home-maker should be lost sight of in the employments sought by our young women. Their work in the industrial world may be so chosen that it will have more than a passing value. Those years between school days and marriage which the young women are called upon to spend as teachers or as assistants in the office, the shop or the factory, should prove helpful in giving to them an intimate knowledge of the outer world which will serve them well in the future by enabling them, as nothing else could do, to understand the cares and the hardships of husband and children who are compelled to spend their days in the modern industrial arena.

In shaping the education of girls, therefore, the school should aim at the development of the future mother and homemaker, and while it must fit the girls for other employments that may intervene, the ultimate aim should not be lost sight of and appropriate means should be employed for its attainment. These will embrace not only the training in the domestic arts but a deliberate formation looking towards the mother's function as the educator of children.

Moreover, while the father may spend less time in the home than formerly, he is not thereby relieved wholly from the duty of supervising the education of his children both in the home and in the school, and these duties should receive adequate recognition among the educational

aims which dominate the work in those schools that conduct the education of our boys and young men.

The home was the first school in order of time and it must always remain the first school in the order of importance. The parents are the natural teachers and in Christian society they are endowed with special sacramental graces to fit them for the proper education of their children. The home is the only school of early infancy, and in the past the home was the school which dominated the real and vocational education of the child, leaving to the school the formal training in the school arts and in the details of higher culture.

In many countries the feeling is growing that overemphasis has been laid in recent times upon the educational process as conducted in the school with a corresponding neglect of the educational activities of the home.

The school is supported by society for the express purpose of ministering to the educational needs of children and it cannot perform this function too well, but this obvious truth furnishes no justification whatever for the neglect by parents of their educational duties towards their children. The responsibility for the child's education has not ceased to rest in the first place upon the parents, and, while they may delegate a part of this work to other agencies, they can never escape the responsibility of overseeing their children's education and of contributing to it in proper measure.

In the industrial transformation through which we are passing, the efficiency of the home as an educative agency has been lowered and its scope has been greatly curtailed; nevertheless, the family still exercises, for good or ill, a preponderating influence on the education of the child. In the first place, it should be noted that the home environ-

ment is calculated to exert a far more potent influence than that of the school—both because the child is exposed to it longer and because, by reason of its priority, it supplies the vital apperception masses which are called into play in the school.

Even where the child continues in school until the completion of his twentieth year, less than one fifth of his time, on the average, is spent in the school, and when the child leaves school at the completion of the fourteenth year, as happens in the majority of cases, the proportion of time spent in the school is far less. The first six years of the child's life are usually spent exclusively in the home, and even during the so-called school years the child seldom spends more than twenty-five to thirty hours a week in the school and the school year consists of from thirty-six to forty weeks. Allowing the child nine hours a day for sleep, there remain for him 5,460 waking hours in the year and, even where the child is regular in his attendance at the school during five hours each day and five days in each of forty weeks, he only spends 1,000 waking hours in school as against 4,460 waking hours for which the home is exclusively responsible.

The love implanted by nature in the parents' hearts for their children gives them a more direct insight into the children's souls and greater power of directing their developing consciousness. The authority over the child vested in the parent finds a corresponding faith and confidence in the normal child. These advantages are shared by teachers in proportion to their training and to the high development of the parental quality which marks the teacher's vocation.

It is rightly insisted upon that those who enter the teaching profession shall have proper qualifications and

that they shall be adequately trained for their work. Those who undertake the work of teaching, should be familiar with the advances made in the educational sciences, but should we not demand with at least equal justice that those who take upon themselves the responsibility of founding homes and bringing children into the world should learn how children are to be brought up?

There is, in fact, a growing realization that educational progress cannot be attained by devoting attention exclusively to the school. Real advance demands that the light of science penetrate the home no less than the school. This is demanded for the very existence of the family no less than for the good of the child. The home and the school must not be separated as educative agencies. The welfare of the child, of the home, of the state and of the church demands the closest cooperation in educational aims and functions between the home and the school. This truth is gaining day by day in general recognition. The societies for the study of education, physical, intellectual and moral, are becoming more numerous. They serve to call attention of both parents and teachers to the results obtained from the scientific study of child nature, and they endeavor to point out ways in which the character of youth shall be formed no less than to indicate the lines to be followed in developing the child's aesthetic and moral nature. In particular there is observable in the work of these organizations an attempt to draw the home and the school into closer cooperation.

In 1899 there was formed in Belgium the *League de l'education familiale* which rapidly attained a large membership. During the years immediately preceding the war, this society organized regular lecture courses in home-making and on the educational duties of parents.

It has given diplomas in home education to girls who passed a satisfactory examination and evinced a desire to devote themselves to training of infants in the home. In response to the rapidly increasing demand, many courses in maternal pedagogy for young women were given.

The movement for home education seems destined to receive an access of strength from the philanthropic tendencies of the day. Abnormal children have caught the popular fancy and they are calling forth a great deal of effort along economic, medical and pedagogical lines. The study of the conditions surrounding these children has tended to emphasize the resources of home education. In the orphan and the foundling we are brought face to face with the results which inevitably follow from the absence of the home environment, and in the case of backward and defective children we are finding more and more that the relief must come in great part from the home, whether we look to prevention or to cure. In fact, there is a growing conviction among thoughtful people that if any real progress is to be made towards ameliorating the evils from which the children of our day suffer, the beginning of the work must take place in the home. This conviction was manifested by three International Congresses, the first held in Liege in 1905, at which twenty-four foreign governments were represented; the second Congress was held in Milan under the patronage of the King of Italy; the third in Brussels under the patronage of Her Majesty, the Queen of Belgium. The Fourth International Congress called to meet in Philadelphia in September, 1914, was postponed on account of the European war. The importance of these congresses in emphasizing the necessity of improving the home as an educational agency is generally recognized.

The discouraging results so often following upon the educational efforts of the members of the home group are due in large measure to the fact that these efforts are put forth at too late a period in the child's life. Frequently no effort is made until the evil has reached such an aggravated form that cure is well-nigh impossible. Here, as elsewhere, prevention is more valuable than cure. A little enlightened care on the part of parents might save the children from contracting indolent and vicious habits. Moreover, the cause of mental arrest could, in many cases, be removed by the parents if the matter were attended to in time. In any case, the intelligent cooperation of home and school is necessary for the proper education of all children, but it is especially urgent in cases where defective tendencies manifest themselves.

In the school the educative process is governed largely by public legislation, but in the home the educational methods employed are not subject to legal control. In this field private initiative holds the first place and we must look for progress to the work of general educative agencies, such as the International Congress for Home Education, and to the circulation among intelligent parents of suitable literature.

Catholics will look for progress, in the first place, to the Church, which speaks to the individual and the family with authority concerning the duties of parentage and the responsibility which parents must meet concerning the education of the children, both in the home and out of it.

But this does not relieve the Catholic public from the responsibility of interesting themselves in the public movement for the improvement of home education. Catholic parents, in fact, are and always have been deeply interested in whatever concerns the welfare of their

children. In this they do not yield to the members of any other denomination. It was, indeed, from this deep and abiding Catholic interest manifesting itself through our Catholic parents that the international movement for the betterment of home education took its origin, and Catholic interest has been manifested in every phase of the movement.

It is the first duty of every social institution to perpetuate itself. This implies that the home in its educative endeavors should hold among its chief aims that of preparing the children worthily for family life and for home-making. The actual home life to which the child is subjected will, of course, exert the chief educative influence in this direction. If the ideals of home life be low, we may scarcely hope that the school or any other educative agency will supply for this fundamental deficiency. In improving the conditions of home life, by proper housing, adequate measures for sanitation, proper diet and the artistic embellishment of the home, we improve the externals and instrumentalities of the home as an educative agency, but the secret of its deepest influence must be found in the Christian virtue of the parents.

The parents who, in their daily intercourse with each other and with their children, manifest a deep and abiding love and who evince a scrupulous care in the discharge of their duties towards the church, the state and their fellow-men, are maintaining in the home the strongest and deepest of educative influences. The school may second the efforts of such parents and by so doing secure a fuller development of the child's powers and a finer culture of his nature, but where the home fails to discharge this duty, the school at its best can offer but a poor substitute for the education which should be given in the home.

CHAPTER XVIII

THE CHURCH

In the twenty-eighth chapter of the Gospel according to St. Matthew, after narrating the facts concerning the death and the resurrection of Jesus Christ, the evangelist gives the charter by which the risen Christ constituted the Church the greatest teaching agency of all times: "And Jesus coming, spoke to them, saying: All power is given to me in heaven and in earth. Going therefore, teach ye all nations; baptizing them in the name of the Father, and of the Son, and of the Holy Ghost. Teaching them to observe all things whatsoever I have commanded you: and behold I am with you all days, even to the consummation of the world."

The history of Christian civilization is the record of the fruitage of this act by which Jesus Christ constituted His Church an infallible teaching agency and endowed her with the right and imposed upon her the duty of governing the children of the kingdom and of ministering to them sacramental graces.

Through the exercise of these divine prerogatives, the Church saved whatever was worthy in pagan civilization; she civilized the nomad and the barbarian; she lifted woman to a place by man's side; she protected the weak against the strong; she developed the ideals of chivalry; she created the fine arts; she became the prolific mother of schools and universities and established the great ideals of Christian life. For an outline of the achievements of the Church in these fields, the reader is referred to the Catholic Encyclopedia. This chapter must be confined to the consideration of some aspects of the Church as a

direct teaching agency. The schools created or controlled by the Church will receive attention in subsequent chapters.

In the first place, it is to be noted among the characteristics of the Church as a direct teaching agency that her mission is to all men: it is not confined to one sex or to one nation or to the immature, but includes the young and the old alike without distinction of color or race or nation. It is the only educative agency that claims to exercise the teaching function towards all mankind. The ordinary school is confined in its scope to the needs of the young. The home limits its educational functions to the members of the family. The educational activity of the state is limited by national boundaries. But the Church transcends all of these limitations as she puts forth her energies and exercises her divine prerogatives for the earthly well-being and the eternal salvation of all men in obedience to the commission: "Going therefore, teach ye all nations."

The universality of the Church's mission to teach demands in her a high order of flexibility or plasticity without which she could not reach the minds and hearts of all men and bend them to the yoke of the Gospel. In what does this plasticity consists and wherein does it reside? The Apostles, who were the Church's first official teachers, were men of very limited education and they could not have been expected of themselves to solve this problem, but their reliance was on the power committed to them from on high and their achievement is the joy of all the children of the Church and the admiration of all social students outside her fold. Owing to her wonderful plasticity, the Church finds herself at home in all nations, at all times and under all forms of government.

Macaulay, while refusing to accept the Church's teaching, could not withhold his admiration for her wonderful plasticity. His tribute has become a commonplace but it still deserves the earnest consideration of all educators who would endeavor to heighten the plastic power of the educational institutions over which they wield influence: "There is not, and there never was on earth, a work of human policy so well deserving of examination as the Roman Catholic Church. The history of that Church joins together the two great ages of human civilization. No other institution is left standing which carries the mind back to the times when the smoke of sacrifice rose from the Pantheon, and when cameleopards and tigers bounded in the Flavian amphitheater. The proudest royal houses are but of yesterday, when compared with the line of the Supreme Pontiffs. . . . The Papacy remains, not in decay, not a mere antique, but full of life and useful vigor. The Catholic Church is still sending forth to the farthest ends of the world missionaries as zealous as those who landed in Kent with Augustine, and still confronting hostile kings with the same spirit with which she confronted Attila." Historians and sociologists from Macaulay's time to our own have vied with each other in paying tribute to the wonderful educational work achieved by the Catholic Church.

The plasticity of the Church as a teaching agency is not to be found in changeableness or fluctuation in the doctrine which she teaches. The doctrinal content of her teaching was fixed for all time in the charter through which she received her teaching commission: "Teaching them to observe all things whatsoever I have commanded you." As age succeeded age, the Church crystallized out

in definite and unchanging form many of the fundamental truths committed to her ministry. These dogmas must be accepted without change or modification by all who enter her fold. For her power to reach all men, therefore, she relies, not upon the intrinsic appeal of her doctrines, which must be received on authority, so much as upon the fruits of her life and work.

A typical instance of the way in which the Church's teaching finds access to the minds of thinking men of our own day may be seen in Frederick Wilhelm Foerster, who began his career in a circle of thought and influence widely removed from that maintained by the Church. In a sketch of his career given by Dr. Booth in the Introduction to his translation of the *Sexualethik und Sexualpädagogik*, we are told of Foerster, "On completing his university course, he felt that his education had been too abstract, too academic, and that he was not sufficiently in touch with real life. He was thus led to throw himself into the study of social questions at first hand, not only in Germany, but also in England and America. His sympathies were at first strongly socialistic (he was even imprisoned for the cause), and he remained aloof from all forms of religion; but with increasing experience he came to regard socialism as deficient in moral and spiritual insight. He perceived that truly to uplift the people something more is necessary than a rearrangement of material conditions, something more, too, than the rather vague humanitarianism of the socialist. . . . Totally uninfluenced by any religious training or by any atmosphere of belief, but following only the *inner necessities* of his own social and educational work, Foerster drew nearer and nearer to Christianity, until, after a still further development, he became convinced that the

Christian religion was the sole foundation for both social and individual life. He thus came into sharp conflict with many of his former associates, who advocated secular education and wished to set religion aside as controversial and non-essential. To them he addressed the following words (in an article written in September, 1909): 'To me the Christian religion is not a mere matter of taste, an affair which has nothing to do with the fundamentals of life; rather do I adhere fully to the words of the Apostle: "For other foundation can no man lay than that is laid." Am I to keep silent about this? Am I to leave untouched that which is to me the central fact of all, in order to devote my attention to what is merely non-committal—although I clearly see that it is a disastrous delusion for the educator to regard this neutral basis as in itself sufficient?'

"It will at once be obvious that in Foerster's development we see a remarkable illustration of some of the most significant tendencies of the present age: for example, the movement from materialism towards religion and the reaction against intellectualism. Foerster is one of those figures, who, at a period of transition, stand above the shifting and transitory opinions of the crowd and with unwavering hand point out the path of future progress. As Rudolph Eucken says, in *The Meaning and Value of Life:* 'A paralyzing doubt saps the vitality of our age. We see a clear proof of this in the fact that, with all our astounding achievements and unremitting progress, we are not really happy. There is no pervading sense of confidence and security. . . . Alternative systems, alternative ideals, fundamentally different in kind, solicit alike our adhesion.' In common with Eucken, Foerster has long been keenly sensitive to the doubt and

indecision of the modern world. His educational work, in particular, has forced upon him the absolute necessity for a firm basis, a clear positive ideal, a center around which all the activities of humanity can be grouped. He perceives that, after generations of a too exclusive occupation with outward and technical progress, accompanied by a serious neglect of inner life, we now stand in need of a moral and spiritual consolidation. Our attention must be diverted from the external to the internal needs of man. Once let men turn with sufficient earnestness to the central and inner problems of our existence, and Foerster is convinced that Christianity will stand forth as the only true foundation of our whole life and civilization."[1]

A part at least of the wide acceptance of the Church's teaching is to be found in the divine guarantee of its truthfulness: "And behold I am with you all days, even to the consummation of the world." The Catholic who accepts the teaching of the Church as infallible, finds in it a secure and unchanging foundation for his conscious life. His intellect finds a light in which to trace the varied phenomena of the world back to their single source. His will finds a law to which it may with dignity yield obedience, and his emotions find an object worthy of their undying fidelity.

The suitability of the Church's teaching to men who differ widely in disposition, temperament and training, and who live in widely different environments, is not to be found in the diverse truths which the Church holds in her custody and metes out to each according to his need, so much as in the fact that her teaching reaches the

[1] Foerster, Marriage and the Sex Problem, New York, 1912, p. v ff.

ultimate springs of human life and deals with those things which belong in common to all mankind. Her teaching aims at bringing to functional activity in each individual those deep underlying principles on which all civilizations rest.

If the Church be contrasted with the school, another of her characteristics as a teaching agency will at once come into view. The school aims at giving a preparation for life; its efforts are chiefly confined to children and youths, but real advance in civilization is made chiefly by adults in the conduct of the affairs of adult life. The secure advances gained by adult thinking and adult activity are committed to the schools to be transmitted to each succeeding generation. The Church's mission, on the contrary, is for life and for adults even more than for children. Her aim is to furnish insight to the individual in the midst of his perplexities; to assist him to recover from the results of his mistakes and blunders and to lead him along the pathways of peace and perfection. Without the guidance furnished by the Church, the movements of the social body are left to chance, to the blind leading the blind, and we find as a consequence that the ebb and flow of thought and feeling seldom give correct indications of the direction in which real progress lies.

Our busy world is peopled with grown-up children who still stand in sore need of authoritative guidance which can only be supplied from above through the channels of divine revelation and through divinely constituted authority. The Church finds it necessary to prepare her little ones for entrance upon adult activities, and she does part of this preparation through her direct teaching ministry, but the major portion of it she confides to schools which are conducted in harmony with her educational aims.

The doctrines which the Church is commissioned by her Divine Founder to teach abound in mysteries which transcend the grasp even of the most highly developed human intellect; nevertheless, the Church has found it written in her duty to teach to the rude and ignorant and to the little child no less than to the savant, the doctrines of creation, of the Trinity, of the Incarnation, of sin and redemption and of an undying life beyond the grave where each individual will receive of joy or of punishment according to his merits, and to teach these doctrines in a manner which will render them effective in guiding all their activities. That she has succeeded in doing this down through the ages, when confronted with nomadic hordes and unlettered populations, no less than when exercising her teaching functions in the halls of universities and in Ecumenical Councils, is high testimony to the value of the methods which she employs. This achievement renders it advisable for the student of education, no matter what may be his belief or unbelief, to examine dispassionately the elements of the teaching process which have contributed in so large a measure to the creation and perpetuation of the culture and civilization which it is the aim of all educational systems in our midst to transmit.

The Church exercises her teaching function through the deliberations of her Councils and the formal definition of her dogmas; she teaches through her official literature and the decisions of her courts and congregations; she teaches through the personal life and example of her saints, living and departed; she teaches through her art and music, through the adminstration of her sacraments and through her liturgical forms no less effectively than she teaches through her schools. The Church teaches

through many channels, but the principles underlying her methods are always the same. They were bequeathed to her by her Founder as an essential part of the trust which works unfailingly for the salvation of the world. Through the development of the pedagogical sciences, we are gradually coming to recognize the nature and validity of many of these principles and we are endeavoring to embody them in current educational methods, but if we would study them where they may be found functioning in their highest efficiency, we must turn to the Gospel and to the organic teaching of the Church.

The Church, in her teaching, reaches the whole man: his intellect, his will, his emotions, his senses, his imagination, his aesthetic sensibilities, his memory, his muscles, and his powers of expression. She neglects nothing in him: she lifts up his whole being and strengthens and cultivates all his faculties in their interdependence.

On feast days and Sundays she gathers her children into her temples and directs their worship of God. Old and young, rich and poor, the learned and the unlearned, are commanded alike to be present, not only that they may pay to God their tribute of worship, but that they may receive grace and enlightenment on the things which most concern them in the conduct of the affairs of life and in the attainment of life everlasting.

From the pulpit, her priests instruct her children, using the familiar forms of speech to bring home to each the great fundamental truths which were preached by Jesus Christ for the salvation and redemption of man. The Gospel is read and the faithful listen to the words of the great Master Teacher and are charmed and held by the power and beauty of His parables. The congregation listens, in the epistle of the day, to the words of

instruction directed by the Apostles to the congregations which they had formed and taught to walk in the footsteps of Christ. The priest is forbidden to preach himself or to desecrate the pulpit by the introduction and display of mundane learning. His duty is to break to the children of the Church the Bread of Life which Jesus Christ brought down from heaven. It is his blessed privilege to teach as one having authority, for the message which he is sent to deliver is the message which was entrusted by Jesus Christ to His Church, "Teaching them all things whatsoever I have commanded you."

While the Church thus embodies in her teaching in a preeminent degree the principle of divine authority, and while she makes her appeal through the doctrine and the method of its presentation, which were entrusted to her, she does not confine her teaching function to reading and preaching to her people. Her liturgical functions themselves have a teaching power of a high order. The very edifice in which Catholic worship is conducted points heavenward and tends to gather up the successive generations of the Church's children into solidarity; it carries the mind back to the days of the basilica in ancient Rome and to the ages of faith which flowered forth in the mediæval cathedrals; memories of the past look out from chancel and reredos, and the noble and disinterested deeds of the saints are called to mind by the stained glass of her windows and by the pictures and statues which adorn her temples; the stations of the cross recall the great tragedy of Calvary with its story of love and self-oblation, while the tabernacle draws all hearts to Jesus in the Sacrament of His love.

The cloud of incense carries the mind of the worshipper back to the smoke of sacrifices which arose from the altars

in ancient days of darkness and of struggle and of Messianic longing and helps to bring home a realization of the meaning of the great sacrifice of redemption. Its perfume reminds the worshipper of the sweetness of prayer, and its ascent indicates the way in which man is lifted up to heaven through the ministry of prayer and worship. The music from her organ and from her chanters stirs the feelings and the emotions of the worshipper and directs them heavenward that they may harmonize with the uplift that is being experienced by all of man's conscious life. Nor is the worshipper permitted to sit back and be a mere witness of this liturgical drama. He constitutes a living, moving part of it, by his song and his prayer, by his genuflection and his posture, he enters into the liturgical action which, in its totality, shows forth the divine constitution of human society by which man is made to cooperate with his fellow-man in fulfilling the destiny of the individual and of society.

In this manner of teaching there may be plainly traced many of the recognized fundamental principles of education. We find here embodied sensory-motor training, the simultaneous appeal to the emotions and to the intellect, the appeal to the memory of the individual and of the race, the authority of the teacher and the faith of the hearer, and the principles of cooperation and of imitation.

That the educators of today have lost their understanding of this great educative function is due in large measure to the revolt of the sixteenth century. In order to escape from the influence and control of the Church, the reformers set to work to frighten the people away from the fascination of her teaching and of her worship and in doing so they went counter to the great fundamental principles of

education through the exercise of which the Church had succeeded and has succeeded even to the present hour in preserving in the lives of her children the great doctrines of revealed truth, not merely as apprehended by the intellect or stored in the memory, but as the living, active forces in their lives which lead them to prayer and to worship, which lead them to make their sacrifices, to offer their oblations, and to remain loyal to the Mother of civilization.

Psychology is revealing to the educators of today the fact that a conscious content strictly confined to the intellect lacks vitality and power of achievement. Every impression tends by its very nature to flow out in expression, and the intellectual content that is isolated from effective consciousness will be found lacking in dynamogenetic content because it has failed to become structural in the mind and remains external thereto. From the evidence in this field, we may safely formulate as a fundamental educative principle: the presence in consciousness of appropriate feeling is indispensable to mental assimilation.

While there is a widespread recognition of the validity of this principle, it has been found difficult to embody it in the working methods of the school. Attempts to do so are, of course, being made with greater or less success, but he who would see its perfect embodiment must turn to the organic teaching of the Catholic Church.

Not only does the Church embody this principle in her liturgy, in her prayers, and in the devotions which she encourages the faithful to pay to her saints, but she carries it into every phase of her teaching. She watches over the unfolding life of the child and the youth and the adult and at each great emotional epoch she implants the germ

of a great truth and of a guiding principle of conduct which is calculated to shape the newly forming phase of conscious life in accordance with the Divine Model. For illustration of this we may turn to her sacramental system.

Her seven sacraments are seven divinely appointed channels of grace through which her children receive assistance from on high for the building up of supernatural virtues and for the development in their souls of a Christian character, but the Church also utilizes the sacraments as educational means to implant in the souls of her children at appropriate times the germs of the divine truths that will guide them safely through this world of darkness to the portals of eternal life.

When race instinct stirs to their depths the hearts of the father and the mother and fills them to overflowing with joy because a child is born to them, the Church brings the child to the baptismal font and in the presence of the rejoicing parents she claims the new life for the realms of light. Hand and foot, eye and ear and tongue and budding wisdom, are all claimed for the service of God and for the higher life of the soul. Joy is the dominant tone in the ritual of the baptismal ceremony. The evil one and his machinations are banished, the fetters of sin and of a material world are stricken from the child's soul, the heavenly Father is called upon again and again to protect with loving kindness and to nourish with the food of heavenly wisdom the soul that is just beginning its earthly career. Hope and joy and eternal life are promised in the name and through the merits of Jesus Christ. While the babe is being regenerated by the saving waters of baptism, while Divine Grace is being infused into his soul, the Church, through her baptismal ceremony with

its symbolism and the lessons of its ritual, implants in the hearts of the parents the great fundamental truths that must guide them in the endeavor to bring up their child to a life of virtue and in their efforts to teach him to walk in the ways of the Lord.

As the child in his seventh year emerges from the life of instinct into the great puzzling outer world, while his mind is still full of questioning wonder and principles and fundamental laws are for him shrouded in obscurity and seeming to blend into their opposites like the colors of the sunset sky, the Church leads him into the confessional and with loving kindness helps him to read his riddles and to master the great fundamental principles which must govern his conduct.

Nor does her ministration cease with the enlightenment of his conscience. His emotions need organization and direction and this, too, she supplies. Nature prepares the little girl at this period through her doll play for future motherhood, and the Church assists both the boy and girl in adjusting themselves to the dawning of emotions and passions which trouble the quiet of their souls without declaring to them their meaning or their ultimate function. At this juncture, the Church leads the children to the communion rail and in the midst of flowers, bridal wreaths, lights and music, accompanied by all the joy that breathes in her ritual, teaches them the great lesson of love for Jesus and for fellow-man; she teaches them the deep truth that disinterested love is the key to the world of emotion and passion that is stirring the depths of their souls. She impresses upon them, in a way that they will never forget, that all love that harmonizes with the love of God and fellow-man, all love that is founded on truth and justice and that is permeated with the spirit of

generous self-sacrifice, leads to joy and gladness; whereas the passion that, ignoring the rights of others and the welfare of society, is blinded by selfishness and out of harmony with the love of God and fellow-man, leads to wretchedness here and to eternal misery hereafter. Moreover, the Church is not content with her own direct and official teaching in this matter. She calls upon the parents and friends of the child to join with her in filling his soul on the happy occasion of his First Holy Communion with such joy and sweetness that it will leave a strong and abiding memory with him to the end that, in the stress and storms of temptation and passion which will break over him later on, he may return again and again to the Sacred Banquet and there renew in the love of Jesus Christ his strength for the combat.

With the advent of adolescence, the flow of emotion is towards independence of action, towards individual responsibility, and towards the necessity of fighting, if need be, for the maintenance of ideals. This may be seen in the boys' growing willingness to fight for his honor and for the honor of father and mother and of home and country. The Church takes advantage of this epoch in the emotional life of the child and, through the the administration of the sacrament of Confirmation, in the joy of Pentecost renewed, fans his courage into flame, impressing upon him the truth that while it is manly to fight for one's honor and one's home, and honorable to die for one's country, there rests upon him a still higher obligation to fight for the honor of his Heavenly Father and to die, if need be, for the Kingdom into which he was born by baptism and in which he is continually nourished by the love of Jesus Christ.

The Church, in her teaching, does not fail to take

advantage of the transition from youth to manhood. As maturity approaches, the bonds of family solidarity are gradually dissolved, while the young man and young woman are brought face to face with life and are called upon to take their part in the social world and to make their contribution to the welfare of the race. The Church studies them and treats them according to their needs. If she finds that the race instincts in them are strong and that in their hearts the cry for home, for wife or husband and children is louder and clearer than any other call, she blesses them and in her nuptial Mass, while pouring out to them her sympathy and her joy, she engraves upon their minds, filled with enthusiasm and lofty ideals, and on their hearts, overflowing with love, the lessons that will help them to make their many sacrifices in order that they shall be two in one flesh and that they may bring into the world children and educate them for heaven.

If, on the other hand, she finds that as maturity approaches a call to the higher life is felt and that the tide of youthful ardor turns towards wider fields of action and towards closer union with the Saviour and Redeemer of the world, she leads them into her sanctuary and shows them how their lives may be rendered enduringly helpful by being interwoven with the lives of their fellows in religious organizations which work unceasingly for the uplift of the race to higher spiritual levels. Finally, for such of her sons as feel themselves called to share intimately in the priesthood of Jesus Christ, and to be the bearers of succor to those who labor and are heavily burdened, the Church offers the Sacrament of Holy Orders. In each and every case, whether in the ceremony of religious profession, or in the conferring of Holy Orders, the ritual of the Church breathes solemn joy. On these

occasions the Church appeals to all that is best in the candidate, and in his soul, glowing with zeal and enthusiasm, she implants the great fundamental truths that must guide him and support him through all the coming years of labor and of patient endurance.

At the last, when death calls a child of the Church to his reward, she is by his side with the sacrament of Extreme Unction to close his senses to the sights and sounds of this world and to open to him the portals of that larger life to which there shall be no end, and in his heart, stirred with deep emotions in the presence of the coming change, and in the hearts of relatives and friends, softened by grief and sympathy, she reaffirms the great fundamental truth that we are in this world as wayfarers and as children far from home.

The Church, through all the forms of her organic teaching, aims at cultivating feeling, but she does not allow her teaching activity to culminate in feeling, which she values chiefly as a means to an end; she employs it to move to action and to form character and she never leaves it without the stamp and the guidance of intellect. As the feelings glow to incandescence, she imparts to them definite direction and animates them with a purpose which, after the emotions and the feelings subside, remains as a guiding principle of conduct.

The Church's method of employing the imitative tendency of child and man to lead them step by step up out of the valleys of sense into the realm of the spiritual life, is characterized by the same wisdom and deep insight into human nature that marks her dealings with the feelings and emotions.

The infant's conduct is governed by instinct. As he progresses from infancy through childhood towards adult

life, the control of his conduct is gradually assumed by his intelligence and free will, acting in the light of individual experience, gained for the most part through imitation. Whosoever, therefore, would control the conduct of the child and shape the character of the adult, must achieve his end, in large measure, through the proper use of the imitative tendency which forms so striking a characteristic of human life in all its stages of development. The human individual tends to copy in his own life the character and the actions of those whom he reveres and loves. As light is lit from light, so virtue springs from virtue, and through imitation noble deeds multiply themselves in the lives of others. But, unfortunately, imitation is not limited to the propagation of virtue; it is equally potent in transmitting vice and in multiplying evil deeds; hence the necessity of controlling the imitative instinct in the light of a larger experience and a higher wisdom than that possessed by the individual. In this respect the Church brings to her task the long experience of the ages and the wisdom of supernatural guidance. The conformity of her methods to the nature of the imitative phenomena is becoming increasingly clear in the light of our growing knowledge of psychology.

The extent of imitative activity varies among different individuals and in the same individual at different times. It is greatest in the early days of childhood and diminishes progressively with the advancing years, but it remains a potent factor throughout life for even the most independent of thinkers.

Imitation in man is governed by two laws, one of which controls its intensity, while the other determines its direction. The former of these laws alone is operative in early childhood where intense imitation without fixed

direction may be observed. The latter law gradually emerges as ideals are built up through imitation of selected models. These laws may be formulated as follows:

I. The strength of the imitative impulse is in inverse ratio to the distance which the imitator perceives to exist between his chosen model and his present conscious power of achievement.

II. In any line of human endeavor, the model that is in most complete harmony with the experience of the imitator and that embodies his ideal of perfection in a given direction serves to orientate his imitative activity.

The infant, having no ideals to fix the direction of his imitation and no moral standards by means of which he may discriminate between good and evil, imitates the conduct of those around him without thought of the effect which such imitation may have upon himself. If he seems to evince a preference for evil in the models of his choice, such preference is not due to the imitative phenomena in itself but to the instinctive tendency to revert to primitive type. This tendency may find its explanation in the doctrine of recapitulation or in the transmission of acquired characteristics, or in a process of selection. Whatever the explanation may be, the fact that the tendency exists and that it is at times very pronounced is only too evident and it must be taken into account in our dealings with the child.

The incubator chick, during the first couple of days after its emergence from the shell, will instinctively answer the cluck by which the mother hen calls her little ones to share in the food which she has found for them, but if the cluck is not heard for some days, the instinct is lost and the call, coming later, will not be responded to.

From this illustration, we may learn that an instinct may be suppressed by denying it opportunity to function

when it first appears. Now, the culture epoch theory urges that opportunity be provided for the child to act out all the savage ways of his savage ancestors, but the Catholic Church adopts an opposite course. She, following in the footsteps of her Divine Founder, insists that the child be protected from exposure to evil and that he be provided with suitable models. In her eyes an evil deed is doubly evil when performed in the presence of the defenseless child or when it is allowed to spread its contagion through publicity of any sort. The adult may, indeed, take measures to protect himself, while the peculiarly helpless condition of the child makes a strong appeal for protection, and the Church continues to point out in the words of her Divine Founder the punishment which a refusal to heed this appeal entails: "He that shall scandalize one of these little ones that believe in Me, it were better for him that a millstone should be hanged about his neck, and that he should be drowned in the depths of the sea."[1]

The Church stresses the obligation that rests upon each one of us to edify his neighbor, and she provides all her children with models of sanctity which are so close to them that the imitative tendency in its intensity may secure adequate expression, while she holds up before their eyes, as the ideals which must give direction to all their imitation, the lives of Jesus and of His Blessed Mother. Hence she lifts to her altars saints taken from every walk of life: from childhood and old age; from the hovels of the poor and the palaces of the rich; from among savage tribes and civilized nations; from among the unlettered and the savant. Her offices, day by day, recall the heroism and the saintly deeds of a multitude of her children who thus continue to exert their influence upon

[1] Matt. xviii. 6.

child and man in leading them towards the perfect model of human conduct—Jesus Christ.

In thus utilizing the imitative impulse as a means of uplift and of salvation, the Church is following in the footsteps of Christ and of His apostles. The mandate to imitate was frequently on the lips of the Saviour: "Be ye therefore perfect as your Heavenly Father is perfect," "But everyone shall be perfect if he be as His Master." "If any man will follow Me, let him deny himself, take up his cross and follow me." "As the Father hath sent Me so I send you;" "This is My commandment, that you love one another, as I have loved you." The Apostles evinced a similar reliance on the principle of imitation: "For yourselves, know how ye ought to follow us;" "To make ourselves an example to you to follow us." "For unto this you are called: Because Christ also suffered for us leaving you an example that you should follow His steps."

It is not surprising, therefore, that the Church should hold among her most precious treasures the concrete embodiment of high truths and noble virtues in the lives of her confessors and martyrs and in the lives of her children of every rank and condition. She intensifies the imitative impulse by teaching her children to love and admire Jesus Christ and His saints whom she constantly keeps before their eyes as the models which should control their imitative activity both in its intensity and in its direction. She commands each one of her children to edify his brother by the example of his conduct, and places a special obligation upon those who are called to her ministry or to membership in her religious families to edify the faithful by their disinterestedness, their obedience to law and their lives of self-conquest.

The science of education is stressing more and more the

principles that the preservation of unity and continuity in the developmental processes demand that the instincts and reflexes be utilized as the bases of habits, that the preservation of symmetry in the developing mind is necessary both to culture and to productive scholarship, that the development of the will and of the aesthetic faculty, and the cultivation and control of the emotions, no less than the training of the cognitive powers, are necessary to culture, that the remedy for materialism may be found in the methods of study and teaching, no less than in the content of the curriculum, and that the power of adjustment to a rapidly changing environment fixes the measure of human vitality.

The embodiment of these principles in Christ's method of teaching is obvious. He constantly appealed to the emotions and instincts, to the love of parent for offspring, to physical appetites, to human ambitions, to the desire for wealth and power, and He makes these purely human tendencies lift the soul into an understanding of the higher truths of revelation. He appealed to the whole man and developed every faculty by which the soul is endowed. He did not let the minds of His followers rest in dry formulae, or in the things of sense which He constantly used to lift up the mind to a view of immaterial truths. He always adjusted Himself to the attitude of His followers and answered the questions that formed themselves in their minds.

These and similar educational principles have, without being understood by her children, always animated the organic teaching of the Church. They were all clearly embodied in her ritual and in her life during the darkest hours of the ninth century, as they were during the brilliant centuries that were adorned by the Fathers and by the Schoolmen.

Those who left the fold of Christ during the sixteenth century carried with them as much of human science as was possessed by those who remained in the bosom of the Church. No longer guided by the spirit of the Church, the reformers abandoned these principles; they suppressed feeling as an unworthy accompaniment of revealed truth; accusing the Church of idolatry, they extinguished the lights on her altars and banished the incense from her sanctuaries, they broke the stained glass of her windows and the images of her saints, they suppressed her sacraments and her ritual; ignorant of the laws of imitation, they would have neither guardian angels nor patron saints; not knowing the vital necessity of expression, they taught that faith without works was sufficient for salvation; with the warning of the Apostles ringing in their ears, "the letter killeth it is the spirit that quickeneth," they accepted the rigid standard of the written word in lieu of the living voice of the Church.

As a consequence of their failure to embody these educative principles in their teaching, revealed truths were extinguished one by one in their midst, thus leaving the descendants of confessors and of martyrs wandering in exterior darkness, where, like the Children of Israel, they were compelled to make bricks without straw. But the day of salvation is at hand. Delving in the natural sciences, the children of this generation are gaining a clearer realization of some of the laws that underlie the life and growth of the mind, and lifting up their eyes they find these laws embodied, perfectly, in the organic teaching of the Catholic Church, which like a cloud by day, and a pillar of fire by night will lead them back into the Kingdom.

CHAPTER XIX

THE SCHOOL

The well-being of society in all its phases demands that whatever of value it has inherited from the past or distilled out of its own experience be preserved and passed on to succeeding generations, and experience gradually demonstrated that this work called for the creation and maintenance of the school.

The home, the church and the state have, at all times, been profoundly interested in education. On it, throughout the entire period of human history, their perpetuity and prosperity have depended. The home was itself the primitive school and it has never ceased to be an important educative agency. At the present time it not only assumes the sole responsibility for the education of the infant, but, willingly or unwillingly, it continues to perform important educational functions for the child and the youth. The Christian Church, likewise, includes teaching among its organic functions.

The home, the church and the state have specific functions to perform which, in the increasing complexity of social development, tend to absorb more and more of their energy and render it necessary for each of them to delegate a part, at least, of their teaching function to the school. The school, which was thus called into existence to supplement the educational work of the three fundamental social institutions, became the means of enlarging and perfecting the educative process itself.

Apart from its duty to perpetuate itself, the sole purpose of the school is to prepare the children to take their proper places in society and in its various institutions.

As an institution it is not fundamental and it cannot be autonomous: it must meet the demands of the institutions which it was created to serve and remain subject to their control, hence the best mode of approach to the study of the nature and functions of the school is through its historical development. For an adequate presentation of this phase of the subject, the reader must turn to the history of education. In this chapter we can do no more than briefly indicate the stages through which the school has passed in reaching its present position in our social economy.

The school did not exist in primitive life: its origin in early times may be traced to various ceremonies associated with the religious worship of the people. These ceremonies were practiced before the hunt, the military expedition, the harvest, the storing of food, and all other socially important events. Myths and legends, religious and intellectual beliefs, superstitions and the various traditions of the tribe, were all embodied in these ceremonies, the most important of which, from an educational standpoint, is that of initiation which was conducted for the girls by the women and for the boys by the men of the tribe.

The initiation ceremonies occurred at the beginning of adolescence and sometimes they were continued at intervals through several years, but they always culminated in the admission of the candidate to adult membership in the tribe. To them may be traced the inception of several prominent characteristics of the school. The instruction was deliberate and was conducted by a select group of individuals who spoke in the name and with the authority of the entire tribe.

The educational value of savage initiations has often

been commented upon.[1] Many of their striking features may still be found in college hazing and in the conferring of degrees by various societies, and there are not wanting at the present day, educators who still defend many of the principles involved. Through the mutilations inflicted in the initiation ceremony, the boy is taught to endure pain; through exposure, he is taught to endure hardship and hunger; through the necessity of meeting the wishes of those conducting the ceremonies, he is taught to obey and reverence his elders. In the course of the ceremonies he is also made to realize, through practical experience, the duty of supplying his family with the necessities of life and to feel a sense of solidarity with his people. In the ceremonies which consist in large part of a crude dramatization of the religious beliefs, politics and history of the people, the individual comes into possession of the social inheritance of the tribe. In this way, also, he learns whatever is known by the tribe concerning the operations of the great forces of nature. Nor do the elders usually allow this opportunity to pass without imparting to the candidate a working knowledge of the practical affairs of life. He is taught how to procure and prepare food, how to make a fire, how to defend himself and those depending upon him from wild beasts and dangerous reptiles and human enemies, and these practical affairs of life are closely linked to his religious beliefs and are often performed as a part of religious worship.

Among most primitive peoples, the father of the family or head of the tribe exercised the functions of the priesthood, and, in consequence, presided over the instruction imparted through the various rites and ceremonies. In a comparatively early stage of progress, however, there

[1] Cf. Monroe, Hist. Ed., Chap. I.

arose a demand for explanations of the phenomena of nature, as well as for a training in appropriate forms of conduct and industry. This growing complexity and difficulty of the paternal office led to a differentiation which resulted in the establishing of schools and of a teaching class. The forces through which this differentiation was actually brought about vary among different peoples, but in most of them the same developmental principles were operative. Here, as elsewhere, under the pressure of life, there resulted differentiation of structure and specialization of function.

The home has continued to train the children in the practical duties of life down to our own day. The need which called for the explanation of natural phenomena and the accumulated wisdom of the past was so closely related to the religion of the people that it was met by the priest rather than by the parent and for long ages the functions of the priest and the teacher remained undifferentiated.

The constant growth of religious belief and religious ceremonial became so burdensome to the memory that it led, in the course of time, with every civilized people, to the development of some form of written language, which, in turn, added one more item to the things to be taught.

In China, where an ideographic language was developed at a very early date, education became an extremely difficult and time-consuming process and was of necessity confined to a limited portion of the population, This, together with the extreme value which he set upon the past, led Confucius to establish a type of school which remained unchanged to the present day. Those pupils who, after many years of study, obtain a mastery of the

ancient literature and of the ancient ways, are entrusted with the offices of government, while the less fortunate pupil takes up the office of teaching. The school is supported by the fees paid by the students. The great majority of the pupils who enter the schools fail to attain even the standard required for the teacher and re-enter the ordinary walks of life.

Chinese education may be taken as typical of the various Oriental systems. In it three of the aims of the school become clearly defined, viz., preparation for the duties of government, preparation to continue the teaching office, and the continuance of the traditional religious teaching.

There is no room in this educational system for progress. The past is to be handed on without change or alteration of any kind. Society relies upon the school, in large measure, to perpetuate the form of government and all other social institutions. The home, of course, continues to teach the children their duty towards their parents and ancestors, but it is to the school that the nation looks for the preservation of the body of Confucian doctrine that is to support and sustain the teaching of the home. Social heredity is, consequently, rendered rigid; more rigid, in fact, than the instinctive inheritance of many of the higher animals.

It always must remain one of the main objects of the school to transmit the past and to bind into solidarity the past, present and future, but there must be sufficient freedom in the manner of this transmission to make room for the new with the old, and where rapid progress is to be achieved, the new must be given a certain preference over the past, since the new may offer the means of advancement and of securing better adjustment to new

environment. Religion has often been accused of over conservatism in its educational work, but, among the Chinese, the school is not controlled by a church, it is committed to private enterprise under the guidance of the state.

A type of school more closely related to the schools of the Western world takes its origin among the Hebrews. With this people, secular and religious life remain closely identified. "As their main religious belief in the existence of one God, the Creator and Conserver of the universe, inspired their form of government, so it dominated everything else in their national and domestic life. It was so closely associated with their national spirit that to be patriotic meant also to be devoutly religious, the two ideas of religion and patriotism being inseparable. No nation in ancient times had so exalted an idea of temporal government; none surely gave woman so high a position in the family, or the family so important a place in the state; none had the means they employed to cultivate the spirit of individualism either in public or in private life."[1]

Among the Hebrews, religion and its teaching became the means of strengthening, purifying and elevating both the home and the state. It was the center from which all their life radiated. During the Patriarchal period, from Abraham to Moses, the functions of priest and teacher remained associated with the head of the family or patriarch. By the law of Moses, a priestly caste was created and the public functions of religion were taken out of the home, but the teaching function remained to the father down to the rise of the Monarchy. During these first two periods of the nation's life, education was con-

[1] McCormick, Hist. of Ed., Washington, 1915, p. 24.

ducted in the home and the father was commanded to impart it to his children. "Thou shalt love the Lord thy God with thy whole heart, and with thy whole soul, and with thy whole strength. And these words which I command thee this day, shall be in thy heart: and thou shalt tell them to thy children, and thou shalt meditate upon them sitting in thy house, and walking on thy journey, sleeping and rising. And thou shalt bind them as a sign on thy hand, and they shall be and shall move between thy eyes. And thou shalt write them in the entry, and on the doors of thy house."[1]

From this command imposed upon the father, it may be seen that for the worthy discharge of the parental office, in addition to the knowledge of religion, the ability to write was required, which, from the beginning of the school as a separate institution, has always been numbered among its chief functions. There does not appear, however, to have existed among the Hebrews during the Patriarchal or Tribal periods a school as a separate institution.

"The schools of the Prophets, in which young men prepared for the prophetical mission, came into existence about the time of Samuel. They flourished in many places during the Royal period. An elderly prophet, who acted as a president or master, ruled these institutions somewhat after the manner of our religious communities. All the students, who were not necessarily levites, lived together. Their first studies were sacred theology, law and tradition. They also learned astronomy, mathematics, Jewish history, music and poetry. Much time was devoted to prayer and recollection."[2]

[1] Deut. vi, 5–9.
[2] McCormick, *ibid.*, 25.

It must not be supposed, however, that the schools of the prophets at once replaced the home as a teaching agency. There are many evidences that education had a comparatively wide diffusion among the people. "The Scribes, who were originally copyists, later became interpreters of the law, and, in a broad sense, the teachers of the people. They arose as the successors of the 'sons of the prophets' during the period of the Babylonian captivity. Although they constituted a lay order, priests and levites were not excluded from them. Esdras was both priest and scribe. They taught the people on the porches of the temple, and in the synagogues. In later times, they established high schools, and taught, besides the Hebrew language, law and religion, a considerable amount of astronomy, and higher mathematics, and in the third century, B. C., offered courses in Greek literature and philosophy."[1] These schools, and the schools subsequently developed in the synagogues, continued to remain more or less closely associated with the priesthood.

The church among the Jewish people developed as an offshoot from the home and the school gradually developed as the offspring of the church. In the Patriarchal period, the patriarch, or head of the family, also exercised the controlling religious functions and powers, hence it was quite natural that when this power split off from the home it should retain its control over the home and over education. The state, as it gradually evolved, remained at first an integral part of the church and later on it remained dependent upon the church. The church among the Hebrews may, therefore, be said to control the home and to have created the school and the state, both of which it continued to control.

[1] McCormick, *ibid.*, 26.

With extreme state control and with the absence of any strong religious organization or church, education, as we have seen, became rigid and inflexible among the Chinese; whereas, among the Hebrews, where the church was predominant, there is witnessed a high level of life, great social vigor, and steady progress. Facts such as these should give pause to those modern educators who seem to regard it as the first condition for progress to eliminate from the control of education the church and all forms of religious teaching.

The Christian church inherited the Jewish traditions and was naturally influenced in the development of her schools by Jewish ideals, but she was scarcely less profoundly influenced by the schools of Greece and Rome. It is true that the Church totally rejected the religion of the Pagans and many of their ideals of life were abhorrent to her, but she preserved and utilized whatever of good she found in the art, in the philosophy, in the literature, and in the education of those peoples.

In prehistoric times, the education of the Hellenes was apparently conducted in the home, but here as elsewhere the school was gradually separated from the home and its work was conducted by specially trained teachers. In Sparta the state, instead of the church, took over to itself from the home the function of education and its control. The dominant aim in the Spartan school was preparation for the state. The state owned the child. It claimed and exercised the right of determining whether or not infants should live. Those who were deemed unpromising were condemned to death by starvation or exposure. The home training of the boys ended at seven, at which time they were admitted to the schools conducted by state officials. Here they lived together, sharing the

same food and sleeping apartments, dressing alike, and having all things in common, for everything belonged to the state. Their food and clothing were scanty; their beds consisted of the tops of weeds; every device was employed that seemed calculated to develop hardy warriors So completely, in fact, did military training dominate in the Spartan school that teaching to read and write was committed to private instruction. Music was, however, retained because of its effect on the martial spirit. Even in the training of women, which was conducted in the home, the dominant idea was preparation to beget warriors for the state.[1] From these schools the ideals of home, and the moral virtues, which it was the business of religion to instill in other nations, were banished. The pupils were indeed taught to tell the truth to their superiors and to revere and obey them, but they were taught to lie to others and to steal, provided they did it with sufficient cunning and courage to escape detection. Slaves were made drunk to exhibit the ugliness of the vice and when they threatened to become too numerous, the youths were directed to murder them and were thus accustomed at an early date to bloodshed and cruelty.

There was little, evidently, in the Spartan school that the Church could take over and make part of her own. Its influence on her was negative. It served, as it should still serve, for a warning against the dangers of an unchecked control by the state of the fundamental social institutions—home and school.

In Athens the school, at an early date, achieved separation from both the home and the state. It was conducted by private individuals, and from the time of Solon was controlled, to a certain extent, by the state. The

[1] Cf. McCormick, Hist. Ed., p. 30.

ideals developed in the Athenian schools and the curriculum used served to lift Greek education far above that given by other nations. The school early differentiated into two forms: the gymnasium, in which physical training was conducted; and the music school, which also included letters and arithmetic. The schools were supported by the fees paid by the pupils. For the wealthier children, they were conducted in special buildings for the purpose, whereas the schools for the poor were either held in the open or in the temples.

The Athenian school contained in itself, in a preeminent degree, the elements of progress. Private initiative was given a large measure of freedom. The home interest and influence was maintained. The state exerted its power in the direction of enrichment and stimulation of education rather than in that of repression. The central aim of education grew out of the Athenian's ideal of individual freedom and of a perfect mind in a perfect body. With the Spartan, the individual had value only in the measure in which he strengthened the state; with the Athenian, the value of the state was measured by what it could do for the individual. It will thus be seen that Athenian civilization had achieved a large measure of what was later on to be perfected by the Christian church. In fact, the Athenian school, both through its form and content, exerted and still exerts a marked and positive influence on Christian schools.

Rome exhibits a third type of pagan school. Down to 250 B. C., when Greek influence began to be felt, the home usually performed the function of education. With the Roman of those days the home was the dominant social institution, the church and the state were both subordinate. The father enjoyed supreme authority in

the family. He might expose his children or sell them into slavery as he saw fit; he alone had the determination of the training and conduct of all the members of the family. Nevertheless, he was expected to train his children for citizenship and for military service, and to this he must have added elementary teaching in reading and writing, since these arts were widely diffused among the people. The Roman was expected to know the law, and the home gave him the necessary equipment for an understanding of it. In this his culture chiefly consisted. The religion of Rome also centered in the home; the father was the priest. The fundamental virtue inculcated was pietas which formed the ethical basis of the family and which was afterwards extended to the wider circles of society.

During the first 100 years of growing Greek influence, from 250 to 148, B. C., schools gradually arose in Rome. They were called into existence by the necessity of making provision for the reception and understanding of Greek culture. From this time forward, the Greek language was considered essential to a liberal education. The schools of the grammarians and rhetoricians which grew up to meet this need were created neither by the state nor the home. They imparted much of the content of the Athenian schools, while they attained the practical aim of the Roman, and hence they made the study of literature and rhetoric a means for the development of forensic oratory. In the latter days of the Republic, and during the Empire, we find several types of schools incorporated into the Roman system of education. The elementary school ministered to the needs of the child from about six to twelve years of age. Secondary education was imparted in Greek and Latin grammar schools, which gradually

came to embrace teaching in astronomy, music, mathematics, etc. The young man, on issuing from these schools, entered the military service or went to a rhetorical school where he received special training for public speaking. From these schools, if desirous of the highest education attainable, he entered one of the great universities of the time.

The development of the Roman school offers a good illustration of the pressure which in our own day is brought to bear upon the school by the practical needs of society. When Greek culture was transplanted to Rome, it became necessary that the Roman school should be freed and broadened in its scope to the end that it might transmit to the young Roman the means of securing the power and prestige which it contained. In like manner, with the growth of the Empire and its wealth, pressure from the economic system was also brought to bear upon the school. The school, the mere creature of the home which it was in the earlier Roman days, was unable to meet these new demands, hence we find it in the Republic and in the early Empire freed, in large measure, from narrow home control and subject to a rigid control by neither church nor state.

In studying the origin of the Christian school, account must be taken of the fact that Christ was the great Master Teacher and that He founded His Church as a teaching agency. The purpose of Christ's teaching and of the teaching of His Church was religious and moral; it reached out to the individual and lifted him up to a new dignity as a child of God; it protected him against the unrestrained authority of the home and of the state. Neither the father nor the state, according to this teaching, had the right to pronounce death sentence on an infant, no

matter how unpromising the future of his physical life might seem. The Church naturally continued to draw upon the teaching power of the home as did the Jews and the early Romans. But when the resources of the home proved insufficient to accomplish her purposes, she established schools of her own. Naturally, the object of these early schools was to supplement the organic teaching of the Church and to protect the children of the Church from the errors and vices of paganism. Her first schools, accordingly, were designed to impart instruction in Christian Doctrine to the pagans who sought admission to her fold. These "catecumenal" schools, as they were called, were conducted by the bishops and the clergy and concerned themselves with the teaching of the doctrines and liturgical forms of the Church and in giving the required moral and ascetical training to fit the candidate for the worthy reception of the sacrament of baptism. Out of these schools there gradually emerged the catechetical schools which became the Christian academies for the teaching of philosophy and theology. From the circumstance that these schools were usually conducted in connection with the Episcopal sees, they served as seminaries for the professional training of the priesthood. In Alexandria, Caesarea, and elsewhere, these catechetical schools broadened out in their courses of instruction until they included Greek philosophy and literature, history, dialectics and the sciences.

The primary reason assigned by the great teachers of the catechetical schools for introducing into their curriculum profane subjects is the relationship which these courses bear in themselves to religious truth, and the need that existed of using such knowledge to prevent Christians from being misled by the wrong uses that were

being made of natural truths by the pagan world.[1] The core of the instruction imparted by the Christian schools from the beginning was the body of religious truth revealed by Jesus Christ and taught by the Church. Around this the other elements of the curriculum gradually took their place and were modified at various times in accordance with the needs of society.

St. Basil, towards the end of the fourth century, organized monastic life in the East and suggested that the monks should take up the work of instructing both children and adults. He also commends the practice of not confining instruction to the Scriptures. In his address to young men on the right use of Greek literature, he says: "So we, if wise, shall take from heathen books whatever befits us and is allied to the truth and shall pass over the rest." St. John Chrysostom, at the end of the fourth century, urges the necessity of giving a Christian training to the children in the home, and, where this is not possible, he urges the parents to send their children to the monasteries, even though, by so doing, they should have to sacrifice their higher literary training. "In fact," says he, "the choice lies between two alternatives; a liberal education which you may get by sending your children to the public schools, or the salvation of their souls which you secure by sending them to the monks. Which is to gain the day, science or the soul? If you can unite both advantages, do so by all means; but if not, choose the more precious."

From this to the time of Charlemagne, Christian education was imparted in the cathedral schools and the Scola Cantorum which came to be associated with each episcopal see. In parish schools, which imparted elementary

[1] Cf. McCormick, Hist. of Ed., pp. 71, 74.

education to the children of the people, and in the great monastic schools, which offered an education both to the laity and to those who intended to enter the monastic orders, St. Benedict taught the dignity of labor, and the arts of peace. These schools were all created and supported by the Church. In some instances, fees were paid by the pupils, but in many cases the education was entirely free.

Charlemagne brought the power of the state to bear on the development of education by perfecting the palace school, by appointing Alcuin as minister of education for the Empire, and by issuing capitularies in which abbots and bishops were urged to exert all their power for the spread of education among the people. In response to this imperial command, we find abbots and bishops everywhere cooperating with the civil authorities in behalf of the schools. Free schools were established in many of the cities and the monastic schools, in many instances, added to free instruction, free board and clothing. Alfred the Great exerted a similar influence on the schools of England. The education of women was also provided for in the convents for women and by the nuns who frequently conducted schools for the young boys and girls in the villages and cities where they were located. The sons of the nobility, from the age of seven or eight, were trained in the palaces of the feudal lords. Under the favor and with the assistance of both church and state, schools were multiplied throughout Christendom. They grew in excellence and were shaped into system by the scholastics.

In the Renaissance, the revival of the pagan classics gave a new impetus to education and modified the current curriculum in many respects. The movement for popular education grew steadily and the school was granted a

large freedom, for the Church not only supplied schools of her own in connection with her parishes, her cathedrals and her monasteries, but she encouraged free schools whether supported by guilds, by the towns, or by private enterprise. Nor was education confined to the upper classes. On the contrary, every provision possible was made for the education of the children of the poor. The Third Council of Lateran, held in 1179, passed the following decree: "The Church of God, being, like a good and tender mother, obliged to provide for the spiritual and corporal wants of the poor, is desirous of procuring for children destitute of pecuniary resources, the means of learning to read and of advancing in the study of letters, and ordains that every cathedral church shall have a master who will instruct gratis the ecclesiastical students of that church and the poor scholars, and that a grant be assigned him which, by sufficing for his maintenance, will thus open the door of the school to studious youths. A free school shall be reopened in the other churches and monasteries, where there formerly existed funds for this purpose. . . . Nobody shall exact any remuneration, either for the license to teach, or for the exercise of teaching, even if his right be based on custom. And the license to keep a school shall not be refused to any person who can justify his capacity for it. Offenders shall be deprived of their ecclesiastical living, for it is meet that, in the Church of God, he who hinders the progress of the churches by selling, from cupidity, the permission to teach, should be himself deprived of the fruit of his labor."[1]

The interests of both the church and the state were promoted by schools whose aim was to develop Christian virtues no less than to impart skill in the arts, and knowl-

[1] Mansi, Collectio Ampl. Concil. Tit. 5, Cap. i.

edge of literature, theology, philosophy and the sciences. Naturally, therefore, education continued to spread among the people and schools to multiply until the Protestant Reformation checked the movement by confiscating the funds of bishoprics and monasteries and exciting the people to break away from the influence of the Church.

The reformers, unable to support schools in place of the church schools which they destroyed, invoked the aid of the state. As Protestant denominations continued to multiply, so did their power to maintain schools diminish until in our own time the task has been very largely abandoned to the state. Moreover, with the separation of the church and state in the United States, the Catholic school came to occupy a different position towards society and the state from that held by its predecessor in Catholic times.

During the Colonial period in this country, and for a considerable time thereafter, the schools of the people were chiefly church schools. The Spanish Franciscans in Florida and New Mexico established schools in 1629, "four years before the establishment of the oldest school in the thirteen eastern colonies." The Catholic schools throughout the colonies were chiefly taught by priests who later on brought to their assistance religious teaching communities of men and women. The early schools in the non-Catholic colonies were poor and scattered. In Massachusetts these schools which were ordinarily maintained in connection with the church, came in time to draw their support from public assessments, and while the church and state were still united, laws were passed compelling the establishment of schools in the different districts, but there was no system; each school conducted its work independently up to the middle of the nineteenth

century. Horace Mann, who, acting as the secretary of the Massachusetts Board of Education, in 1837, laid the foundations of the state school system, gives a graphic description of the condition in which he found the schools of Massachusetts in his day: "In this Commonwealth, there are about 3,000 Public Schools, in all of which the rudiments of knowledge are taught. These schools, at the present time, are so many distinct, independent communities; each being governed by its own habits, traditions, and local customs. There is no common, superintending power over them; there is no bond of brotherhood or family between them. They are strangers and aliens to each other. The teachers are, as it were, embedded, each in his own school district, and they are yet to be excavated and brought together, and to be established, each as a polished pillar of a holy temple. As the system is now administered, if any improvement in principles or modes of teaching is discovered by talent or accident, in one school,—instead of being published to the world, it dies with the discoverer. No means exist for multiplying new truths, or even for preserving old ones."[1]

According to the same authority, the physical condition of the schools of Massachusetts, in 1837, was in keeping with their methods and want of organization. Speaking of the need of improvement in school buildings, he says: "The construction of schoolhouses involves, not the love of study and proficiency, only, but health and length of life. I have the testimony of many eminent physicians to this fact. They assure me that it is within their own personal knowledge, that there is, annually, loss of life, destruction of health, and such anatomical distortion as renders life hardly worth possessing, growing out of the

[1] Horace Mann, Lectures on Education, Boston, 1855, p. 19.

bad construction of our schoolhouses. Nor is this evil confined to a few of them only. It is a very general calamity. I have seen many schoolhouses, in central districts of rich and populous towns, where each seat connected with a desk, consisted only of an upright post or pedestal, jutting up out of the floor, the upper end of which was only about eight or ten inches square, without side arms or backboard; and some of them so high that the feet of the children in vain sought after the floor. They were beyond soundings. Yet, on the hard top of these stumps, the masters and misses of the school must balance themselves, as well as they can, for six hours in a day. All attempts to preserve silence in such a house are not only vain, but cruel. Nothing but absolute empalement could keep a live child still, on such a seat; and you would hardly think him worth living, if it could."[1] The means of heating, of ventilation and of keeping out the rain and storms are described as on a level with the seating devices.

In conditions such as these, it was inevitable that the state should take hold of the situation and lift the school into efficiency. The movement begun by the Legislature of Massachusetts, which, in 1837, established the Massachusetts Board of Education, rapidly spread into the other states.

While the schools throughout the colonial period and up to the middle of the nineteenth century were chiefly denominational, the government not infrequently helped to support them out of the public funds. This phase of the question was brought to an issue in New York in 1840. Catholic and denominational schools in New York City, prior to that time, received their proportionate

[1] Horace Mann, *ibid.*, p. 23.

share of the common school fund. The non-denominational schools which had gradually grown up were controlled by the Public School Society which received and distributed their proportion of the public school fund. In this arrangement the schools were controlled by religious and private associations and supported, in part, by the state. In 1824, through the efforts of the Public School Society, state support was withdrawn from denominational schools. This condition proved unsatisfactory for many reasons, as may be seen from Governor Seward's illuminating message to the Legislature on January 1, 1840. His message also reveals another of the grave problems pressing for solution which demanded the assistance of the school. "The children of foreigners, found in great numbers in our populous cities and towns, and in the vicinity of our public works, are too often deprived of the advantages of our system of public education, in consequence of prejudices arising from difference of language or religion. It ought never to be forgotten that the public welfare is as deeply concerned in their education as in that of our own children. I do not hesitate, therefore, to recommend the establishment of schools in which they may be instructed by teachers speaking the same language with themselves, and professing the same faith. There would be no inequality in such a measure, since it happens from the force of circumstances, if not from choice, that the responsibilities of education are in most instances confided by us to native citizens, and occasions seldom offer for a trial of our magnanimity by committing that trust to persons differing from ourselves in language or religion. Since we have opened our country and all its fulness to the oppressed of every nation, we should evince wisdom equal to such

generosity by qualifying their children for the higher responsibilities of citizenship."[1]

The people of the city and state of New York, however, were not ready to receive and act upon the broad and equitable policy outlined by their Governor. His message precipitated a controversy between the Catholics and non-Catholics of New York which resulted in the discontinuance of the Public School Society and the establishment of the state school system. The controversy called nation-wide attention to the importance of religious instruction in the schools.

The brilliant discussions of Archbishop Hughes, the leader of the Catholic party, convinced Catholics that the attendance of Catholic children at the state schools as then conducted meant a proximate danger to their faith, while the bitter antagonism of the non-Catholic press and public made it evident that the state schools would not be modified so as to meet the needs of Catholics. Archbishop Hughes turned immediately to the work of calling into existence parish schools to meet the needs of Catholic children. During the remaining years of his life his watchword was: "Let parochial schools be established and maintained everywhere; the days have come, and the place, in which the school is more necessary than the Church."[1]

From 1840 on, state schools were rapidly developed throughout the country. The National Government, however, has no immediate jurisdiction over the school, but it encourages and promotes education through a national bureau established for the collection and dissemination of statistics and whatever other matter may

[1] N. Y. Assembly Documents, 1840, Vol. i, p. 5.

[1] For an account of this controversy and its results see Burns, Catholic School System, New York, 1908, Chap. IX.

seem helpful to schools of all sorts. The several states built up and support their own systems of education, but the schools which they embrace fail to meet the essential requirements of the Catholic Church, hence today, in the same street one sees the public school and the parochial school. In the same city non-sectarian colleges are rivalled by colleges under denominational control. Nor is the situation here outlined confined to the opposition of Catholic schools to state schools. Many Protestant denominations have found it feasible to develop their own schools, while schools drawing their support from private endowment and governed by private enterprise still continue to flourish in our midst.

The state schools are supported by the taxes paid by Catholic and non-Catholic alike. When the public support was withdrawn from Catholic schools, the Church addressed herself at once to the onerous task of building up a school system of her own in which Catholic immigrants might be taught in their own language and in which the secure foundations of the Catholic faith might be laid. During the fourscore years that have elapsed, she has continued her work of education in her schools, not because she denies the right of the state to instruct its citizens, but she regards the training of every man and woman in the truths of religion a matter of paramount importance, both for temporal and for eternal welfare.

Horace Mann, Henry Barnard, and the other educational leaders who contributed in so large a measure to the upbuilding of the state school systems of this country, were not unmindful of the child's urgent need of religious instruction, but they were convinced that this instruction could be effectively given in the home and in the church.

While they banished religious instruction from the state schools, they had no desire whatever to banish it from the lives of the people. The experiment, however, which they initiated has proven conclusively that when religion is banished from the school it will not be kept alive by the home and the church.

Scarcely a generation had passed after the establishment of non-religious public schools before the plan which was adopted as a compromise rendered necessary by the conflict of religious creeds was held up as an ideal and a generation of educators appeared who attempted to show on scientific grounds that religion should be excluded from the schools. These men asserted that the church was opposed to science and that her method of teaching religion by authority was incompatible with the spirit of free investigation and that the mind of the child was not able to seize upon religious truth in such a way as to make it fruitful. They lost sight of the fact that many of the greatest scientists, discoverers and men of letters had been loyal Catholics, educated in Catholic institutions, and encouraged in their scientific work by the authority of the church.

In their endeavor to realize the ideal of a non-religious school, text-books and methods were purged of religious content and the child mind was formed in a system of knowledge which left no room for God or religion. The results, as might have been expected, were not long in manifesting themselves. Religious indifferentism spread rapidly; the denominational churches were emptied; juvenile crime increased by leaps and bounds.

To meet these difficulties, energetic efforts were put forth on all sides to introduce into the schools effective moral teaching which, however, was not allowed to be

based on religious dogma. The teacher was required to find adequate sanction for the child's conduct on this side of the grave. Self-interest was to take the place of obedience to supernatural authority, but the results were not satisfying.

During the last few decades there has been an increasing demand by the thoughtful elements of our population for the introduction of religious teaching into the public schools. In many states legislation has already been secured which commands Bible reading and "non-sectarian" religious and moral instruction. Prizes are offered from time to time for the best essay setting forth a plan by which this end may be achieved. In 1915, 1,300 educators responded to the call for a prize essay on "The Essential Place of Religion in Education, with an Outline of a Plan for Introducing Religious Teaching into the Public Schools." This contest was conducted by the National Teachers Association. It is gratifying to those who steadfastly maintain the necessity of religion in the schools to note that the public conscience is rejecting the non-religious school as an ideal.

The verdict of psychology, confirmed by our nation wide experiment, shows that the church in her educational methods conforms to the laws of mental life when she unites the teaching of religion to the teaching of other subjects. That her methods conform to the laws of the mind, may be seen with equal clearness in her teaching of religion itself, in her liturgy, through which she appeals to the senses, in her symbolism, which depends upon the association of ideas, in her insistence upon manifesting faith in action, and in the honor which she bids her children pay to the saintly men and women whose lives deserve imitation. In fact, psychology is just beginning to

study the laws which the Church from her earliest days has consistently observed.

From the Catholic point of view, there can be no doubt that the child who receives a religious education is better equipped for his future contact with the world than the child to whom no such education is given. For when religion is properly taught, it fixes in the mind certain beliefs that steady it in the midst of doubt and certain principles of conduct which guide and protect it in the midst of temptation. The adaptation to environment which religion inculcates is not a weak yielding to every influence, but rather the power of discriminating good from evil and of holding fast to that which is good.

In contrasting the Catholic school with the state school, it should not be forgotten that they are both public schools and they must both minister to the needs of the home, of the state, and of society in general. In addition to these services, the Catholic school must include among its aims the teaching of religion and the upbuilding and perpetuity of the Church. These added services, however, do not in any way derogate from the public character of our Catholic schools.

Nicholas Murray Butler rightly says: "To understand fully the position and progress of education in the United States, a clear distinction must be drawn between the activities of the state, the American people viewed as an organized unit, and those of the government, the specific agencies and powers created by the state, through the Constitution, to accomplish certain definite purposes, which, taken together, are the ends or aims of government. Whatever is done by the state or in the state's interest, whether it be carried out by a governmental agency or not, is public; whatever is done by the government is

presumably public, and certainly tax-supported. Much of the educational activity of the United States is truly public but in no wise governmental. For example, the United States possesses no university maintained by the national government, but it possesses a half-dozen national universities. Important educational undertakings of various kinds are carried on in the sphere or domain of liberty side by side with those which are carried on in the sphere or domain of government. The true test, in the American system, of a public institution or activity is the purpose which it serves, and not the form of its control or the source of its financial support. That is public which springs from the public and serves the public; that is governmental which springs from the government and is administered by the government. In other words, the sphere of public activity is larger than that of governmental activity."[1]

By far the largest part of the educational activity of the United States is governmental, nevertheless, private and denominational schools continue to render a great public service. The Catholic schools of the country minister to the needs of more than one and a half million children. The education that is given in these schools achieves all the aims included in the scope of the state schools and is more efficient in their achievement. These schools are supported by the gratuitous offerings of the Catholic people, a fact which makes the non-Catholic taxpayer a heavy debtor to his Catholic fellow-citizen.

[1] Dutton and Snedden, Admin. of Pub. Ed. in U. S., New York, 1910, p. v.

CHAPTER XX

STATE SCHOOL SYSTEMS

The school that is created, supported and governed by the home tends to remain isolated. It serves the interests of a small group and whatever services it may render to the Church, the State, and society at large, are more or less incidental. Under such conditions, adequate provision for the training of teachers is not made nor is it possible to bring the schools of various characters into vital articulation and efficient cooperation. The home may create schools and control their activities, but it is incapable of creating or developing school systems. The accomplishment of this task calls for an institution of a wider and more general scope. The Church and the State are the two institutions capable of creating and controlling school systems and they are both vitally interested in the accomplishment of this object.

From early Christian times, throughout the Middle Ages and down to the days of the Protestant Reformation, the Church controlled education and called into existence elaborate systems of schools, ranging from the village school, that ministered to the needs of the poor, through parochial schools, cathedral schools and monastic schools, up to the great universities. She provided for the training and proper licensing of teachers; she controlled curricula and established academic degrees having international value.

The Reformation brought about many changes in the educational activities of Christendom. Most of these may be traced to the change which it brought about in non-Catholic countries in the relations between the Church

and the State. The immediate effect of the Reformation among the German nations was a sharp decline in the education of all classes, but particularly in the education of the poor. This, as was pointed out above, was due in large measure to the diverting of educational endowments from the schools to the purposes of the state. The need of popular education, however, was clearly seen by the Reformers and they utilized the means at their disposal to revive interest in the education of the masses. Government aid was invoked and in their preaching they pointed out the great need which people had of proficiency in the elementary school arts so that they might read the Bible and exercise their right of private judgment. This latter motive long continued to be operative in shaping the elementary schools of the German peoples.

Prussia, the largest of the German states, was among the first to develop a state school system and it has continued down to the present time to exert a potent influence on the school systems of other countries. Through Horace Mann, Henry Barnard, and other educational leaders of the time, German educational ideals were rendered operative in creating the state school systems of this country, and her technical and vocational schools are at present stimulating and guiding educational activity in a similar direction.

The rise of the state system of education in Prussia was due, in large measure, to the despotic power vested in its monarchs and which the Hohenzollerns used in the interests of the people. The state control of education began to manifest itself as early as 1532, at which date a "consistory" of clerical and lay officers was appointed to superintend both the church and the school. In 1604, a Board was appointed for the supervision of educational

institutions, but for nearly a century from that date the schools continued to be regarded as belonging to the church. In 1687, it was declared that the schools belonged to the state as well as to the church, although the teacher continued for many years longer to be regarded as a sort of assistant to the pastor, and at the end of the eighteenth century we still find Frederick William II holding that the main business of the school is to teach religion.

The realization on the part of the Government of the advisability of general education began to find expression about the middle of the seventeenth century in orders issued to parents to send their children regularly to school. A little later it was decreed that schools should be established in the villages as well as in the cities. These decrees, however, were not carried out at once. The real development of a state system of education that was to be nation-wide in its scope was a part of the strong centralization of government forces and institutions which took place under Frederick William I and Frederick the Great.

Frederick the Great did not confine his attention to the elementary school, but interested himself in secondary and higher education. He broadened the scope of university work, reestablished the "Academy of Sciences," and founded the "Academy of Nobles" to train the sons of the upper class to become army officers and diplomats. He centralized secondary education by placing all the local "consistories" except that in the Catholic duchy of Silesia, under the jurisdiction of the one at the capitol. This resulted in the development of a lesser number of strong *gymnasien* with uniform courses. He ordered all vacancies in the elementary schools to be

filled by teachers who had received their training in the *Real Schule.* By a decree issued in 1763, he established compulsory education for all the children of the country between the ages of five and thirteen and established Sunday continuation schools for young people beyond the school age. Special provision was made for children who were too poor to pay the usual school fees. Teachers were required to graduate from Hecker's Seminary and to pass an examination and receive a license from the inspector. Pastors were required to visit the schools and inspectors were obliged to file an annual report of the schools under their jurisdiction. Similar regulations were made for the Catholic schools in Silesia.

These decrees were bitterly opposed by teachers and farmers and were not fully enforced for many years. Even after the establishment of a central board to control all the schools in the Kingdom, in 1787, the control of education continued to reside in the church, since the majority of the members of the board were clergymen, and its jurisdiction was limited by Frederick William II to the elementary schools. Nevertheless, in the General Code or fundamental law of Prussia, published in 1794, it is stated that "All schools and universities are state institutions, charged with the instruction of youth in useful information and scientific knowledge. Such institutions may be founded only with the knowledge and consent of the state." And again, "All public schools and educational institutions are under the supervision of the state, and are at all times subject to its examination and inspection." Teachers were to be appointed by the state or with its consent. The teachers in the secondary schools were regarded as state officials. While compulsory education prevailed, no child could be compelled to stay

in the school for instruction in any other form of religion than that in which he was brought up. These regulations, like those which preceded them, met with considerable opposition and were not fully effective until the beginning of the nineteenth century.

"The decrees of 1717 and 1763, the establishment of the *Oberschulcollegium* in 1787, the General Code, promulgated in 1794, the foundation of a Bureau of Education in 1807, and of a separate department in 1817, and the organization of educational provinces in 1825, are the milestones that mark the way to state control. But while the influence of the church has been constantly diminishing, it is still felt to some extent. Many of the board members are ministers or priests and the inspectors come mostly from the clergy. Moreover, religious instruction forms part of the course in every school, although it is given at such an hour that any pupil may withdraw if the teaching is contrary to the faith in which he has been reared. The secondary schools are largely interdenominational, but in elementary education there are separate schools for Catholics and Protestants, alike supported by the State."[1]

How unsuitable the Prussian system of schools is to conditions in the United States may be seen in the fact that it tends to preserve and perpetuate social laminae. A pupil graduating from the *Volksschulen* cannot enter the secondary school. In fact, after the first three years in the elementary school, it is practically impossible for a pupil to transfer to the secondary system. The children of the aristocratic class receive the first three years of their training, from six to nine, in a special preparatory school.

[1] Graves, Hist. of Mod. Educ., New York, 1913, pp. 287–288. For a fuller account of the rise of state control in the Prussian schools, see Chap. IX of the work quoted above.

They may then enter the *Gymnasium* and pursue their way towards the universities and professional schools. The common schools are free, while a substantial tuition fee is charged in the *Gymnasien*. There thus exists an impassible barrier for the pupil between the common schools and the schools for the aristocracy. Moreover, in their development, these two sections of the Prussian school system have had an entirely different history. The peoples' schools arose from the isolated individual schools of the people, whereas the secondary schools received the impulse for their development and their guidance from the universities.

The original German type of secondary school, the *Gymnasium*, was purely humanistic and its character has not materially changed, although in the course of time its curriculum received an infiltration of mathematics. During the past half century, the progress of science was responsible for calling into existence *Realgymnasien* and other types of *Realschulen* in which modern languages, mathematics and the sciences are taught. The latest type of school developed in Prussia was that designed to meet the industrial and commercial needs of the people. These vocational schools have already attained a high degree of efficiency and to them the industrial and commercial prosperity of Germany is in no small measure due. The German universities, by taking up scientific research as an essential part of their work, have not only contributed to the advance of general scholarship and the efficiency of professional training, but indirectly they have profoundly modified the processes of manufactures and thus contributed, in large measure, to the prosperity of the country.

It is worthy of note that in the German system of

secondary and higher education, the candidate, after three years in a *Vorschule* and nine years in a *Gymnasium* or *Realgymnasium*, is, at the age of eighteen, prepared to enter the university; whereas, in the United States, the average age of the student graduating from college is over twenty-three. There are, however, longer school hours and a longer school year in the German secondary schools and the discipline is rigid.

In France, the church continued much longer in the control of education, and the transition to a centralized state system was comparatively sudden and extreme. All the schools of the Republic are centralized and their control is assumed directly by the national government and vested in a minister of education who is assisted by three directors, one of whom deals with primary schools, and the other two with the secondary schools and higher education respectively.

In England, the process of centralization of educational institutions and their control by the state has progressed slowly. This is due to the widespread conviction in England that the function of education belongs, essentially, to the church and the family. The trend towards universal education, was, however, promoted by the enactment of child labor laws and the granting of subsidies to existing schools. To this was added, late in the nineteenth century, the establishment of "Board Schools" under the control of a board chosen by the people of the community. Compulsory attendance laws were passed in 1876 and 1880. Extra government grants have made it possible for elementary schools to dispense with tuition fees. A further step towards government control of the schools was taken in 1899 by the creation of a central board of education. An act was passed in 1902 permit-

ting denominational schools to share in the local rates and the administration of both board and voluntary schools was centralized in county councils and in the councils of large cities. Thus the dual system was finally united to a limited extent under government control. A further attempt was made the same year to coordinate primary and secondary education and to develop an articulated system of schools for the kingdom.

In Canada, as in the United States, the separate provinces assumed control of education. Two types of educational systems have developed as a result. The state system prevails in Ontario, while the school system of Quebec remains in the control of the church.

In the United States, as elsewhere, schools are much older than school systems. In colonial days and in the early years of the republic, the elementary school was called into existence to meet the needs of the local community. At times, the school owed its immediate origin to private initiative and secured its support through fees paid by the pupils, but in the great majority of cases the school was connected with the church and when not taught by the pastor it was under his immediate supervision. For a long time each school remained isolated. The curriculum of the elementary school was usually confined to the teaching of religion and the elementary school arts. The progress of the pupils was not graded or systematized. The teachers were without special training for their work and were left largely to their own ingenuity and individual initiative. The absence of cooperation impeded progress. The isolation and waste incident to this state of affairs are well illustrated by the following incident related by Horace Mann:

"A gentleman, filling one of the highest civil offices in

this Commonwealth,—a resident in one of the oldest counties and in one of the largest towns of the state,—a sincere friend of the cause of education,—recently put into my hands a printed report, drawn up by a clergyman of high repute, which described, as was supposed, an important improvement in relation to our common schools, and earnestly enjoined its general adoption; when it happened to be within my own knowledge, that the supposed new discovery had been in successful operation for sixteen years, in a town but little more than sixteen miles distant."[1]

The need of system in the schools of Massachusetts at that time was obvious, but there were many obstacles in the way of its creation. The country was divided up into small districts, each of which was autonomous in the control of its school. They were required by law to support an elementary school and, where the population of the town justified it, they were also required to support a secondary school to prepare young men for entrance into college. They levied their own taxes, appointed a teacher of their choice, no matter what might be his qualifications, and shaped the curriculum and selected text-books without any reference to other schools.

The building of railroads, and the establishment of telegraphic communication, the government postal system, and the large business enterprises that were springing up throughout the country in the middle of the nineteenth century, rendered the isolated schools anomalous. The growing pressure from the social and economic development of the communities in time compelled them to so far relinquish local control of the school as to permit the development of school systems in the several states.

[1] Mann, Lect. on Educ., Boston, 1855, p. 19.

In the days when the Constitution of the United States was framed, the sentiment for local self-government was too strong to permit of the establishment of a central national system of education.

The Fathers of the Republic were keenly conscious of the necessity of universal education. They realized fully that the stability of the government they were establishing depended upon it. In his message to Congress in 1790, Washington voiced this sentiment: "Knowledge is, in every country, the surest basis of public happiness. In one in which the measures of government receive their impression so immediately as in ours from the sense of the community, it is correspondingly essential."

The general diffusion of knowledge was the object aimed at by Washington. He did not interest himself immediately in the character of the school or the school system through which this end was to be achieved. He suggested that Congress might determine whether this general diffusion of knowledge "will be best promoted by affording aid to seminaries of learning already established, by the institution of a national university, or by any other expedients."

It would seem that Washington had in mind secondary and higher institutions of learning, rather than the common schools, and such a view is in keeping with the educational traditions of his native state. The people of Virginia inherited the aristocratic ideals of England and showed little interest in elementary education. The planters employed private teachers or sent their children abroad, and the children of the poor, in consequence, remained illiterate. When the government of Virginia did finally interest itself in the education of its people, its first act was to endow the College of William and

Mary, and when it finally took into consideration the elementary school, it was to establish schools for the pauper children who could not afford to pay the fees exacted in the existing elementary schools of the state.

Washington continued to think of the services for education that might be performed by the national government. He recommended the establishment of a national university, a recommendation which has never been carried out. Another of his suggestions proved more fruitful That was the establishment of a "national central agency, charged with collecting and diffusing information and enabled by premiums and small pecuniary aids to encourage and assist a spirit of discovery and improvement." The two most conspicuous results of this suggestion are the Department of Agriculture and the United States Bureau of Education.

Thomas Jefferson, likewise, stressed information as the central thought in education. He strove for the general diffusion of education, but was opposed to the centralization of its control. He believed that the government should, indeed, support schools, but the control of the schools should remain in the hands of the local communities. His influence thus tended to promote a development of the school and its state support while it was scarcely less effective in impeding the organization of school systems. In a letter to Washington, written in 1786, he says: "It is an axiom in my mind that our liberty can never be safe but in the hands of the people themselves, and that, too, in the people with a certain degree of instruction. This is the business of the state to effect and on a general plan." The idea of the state's responsibility for education and the further idea of the local government of the school were frequent themes with him.

Towards the end of his career, he wrote: "There are two subjects, indeed, which I claim a right to further as long as I breathe, the public education and the subdivision of counties into wards. I consider the continuance of republican government as absolutely hanging on these two hooks."

James Madison, and many other statesmen of the time, gave expression to the view that the welfare and even the continuance of our government, depended upon the general diffusion of knowledge or popular education. They took it for granted that this end could only be achieved through state agency. In their minds, the justification for state interference in education and state support, lay in the necessity of education for the existence and support of the state. But few of them, if any, seemed to have a clear realization of the need of organization and system on a large scale in the schools supported and controlled by the state.

The views of the Fathers of the Republic and its early statesmen were not shared by the people in general. In New England and throughout the early colonies, in fact, the purpose of education was held to be twofold: first to impart religious instruction, and secondly, to equip the individual for a successful struggle with his physical and social environments. The state's right to interfere was, in the popular consciousness, based upon the state's duty to promote individual welfare. The social aspect of education did not receive general recognition during the early decades of the Republic.

The creation of a state school system for Massachusetts was opposed by four great forces: (1) the disintegrating force of Protestantism, with its emphasis on the right to private judgment in the interpretation of the Sacred

Scriptures; (2) the deep-seated idea of local self-government; (3) the individualistic aim of education; and (4) the unwillingness of the people to tax themselves for the purposes of general education. The man who had no children of school age could not find it set down within his duty to contribute to the support of his neighbor's children, nor was he able to see the justice of this procedure until the social aim of education received general recognition.

The development of the state school system in Massachusetts may be taken as typical of the history of school systems in the older states.

The beginning of the school system in Massachusetts may be traced to the pressure which was gradually brought to bear at the beginning of the nineteenth century for the professional training of teachers. In 1816, Olmstead urged the establishment of free training schools for schoolmasters. In 1823, J. L. Kingsley published an urgent appeal for the same purpose in the *North American Review*. During this and the following years such men as Russell and Gallaudet assisted in the propaganda. At this time, also, private normal schools began to appear. Educational societies and various educational publications continued to agitate for better methods and better training of teachers. James G. Carter took up the matter in the Legislature of Massachusetts and continued to agitate for better schools through the public prints, emphasizing particularly the need of a normal school for the training of public school teachers. His work on the "Outlines of an Institution for the Education of Teachers" was widely circulated and earned for him the title of "Father of the Normal Schools." He succeeded in getting a bill passed by the State Legislature, in 1826, to reform the school

system of Massachusetts. By this law each town as a whole was required to choose a regular committee to supervise the schools, to choose the text-books, to examine, certify and employ teachers. This act was neutralized, in large measure, by the opposition of the party favoring extreme local control. In 1834, Carter succeeded in getting a state school fund established, the income from which was distributed only to those towns which raised $1 by local taxation for every child of school age. In 1837, he secured the passage of an act establishing a state board of education of which Horace Mann was the first secretary, an office which he retained for twelve years.

Horace Mann, who has often been called the "Father of the Public Schools," set to work at once to mould the existing schools into an effective school system. Through personal inspection, through addresses to assemblies of teachers, through his annual reports, and the *Massachusetts Common School Journal*, which he founded and supported, he accomplished many of the objects to which he addressed himself, and the influence of his work was felt throughout the country. He succeeded in establishing three state normal schools for the training of public school teachers, school libraries in connection with many of the schools, and awakened a public sentiment in favor of improved text-books and better methods. He began the work of consolidating the schools, he changed the curriculum, and eliminated from the schools the teaching of religion and the control of the church, and thus there emerged the fundamental lines of a state school system which is typical of the system adopted by most of the states.

As was to be expected, Mann encountered serious opposition from many sources which prevented him from

completely realizing his ideals which were borrowed, in large measure, from European school systems. The centralizing tendency which was begun under his secretaryship was continued by his successors and particularly through the writings of Henry Barnard who held, at different times, the secretaryship of the State Boards of Education in Connecticut and in Rhode Island until he was appointed first United States Commissioner of Education in 1867. Barnard's educational writings were extensive and influential. Through his *American Journal of Education*, in particular, he contributed greatly towards rendering American educators familiar with the educational methods and systems of Europe.

From the middle of the nineteenth century onward, the centralizing tendency in the common schools of New England grew steadily, but the district system did not wholly disappear until our own day. Secondary schools were at first required in towns of suitable size by the law of Massachusetts. These were gradually brought into the state school system and their number rapidly multiplied in the latter part of the century. In the west, high schools grew up as a part of the state system and provision was made in all of the newer states for the support of a state university which served to give a higher academic and professional training free to the citizens of the state, to prepare teachers for the secondary schools, and to exert an uplifting and unifying influence on the state school system. Normal schools sprang up everywhere for the training of elementary teachers in the country districts. City training schools performed a similar function for the larger cities.

During the time that the state school system was completing its development under centralized control,

establishing schools of various character and articulating them with each other, the aim of education was gradually undergoing a profound transformation. The original individualistic view of education was long-lived. Even those educators who occupied themselves with the technique of teaching and methods of supervision continued to hold that the function of democratic government was to give to every individual freedom of opportunity and the function of state education was to equip the individual in the briefest time for the competitive struggle of individual with individual. As a consequence, education continued to be intensely utilitarian.

From 1840 on, however, there may be discerned a growing sociological tendency in state education, and before the end of the century was reached, the dominant view came to be that the central aim of state education should be to prepare the children for worthy citizenship. It was gradually realized that both individual and social welfare depend upon the proper adjustment of the individual to institutional life and this came to be more and more the conscious aim of state education. As a result of this change, the curriculum underwent a gradual transformation in which emphasis was shifted from formal knowledge and technical skill to history, economics and literature. The building of character, the forming of social habits, and the instilling of patriotic motives, gradually came into the foreground and knowledge and intellectual culture were valued not so much for their own sake as for their effect on character and conduct.

Thus, in the course of time, the development of social science effected a change in educational aims. The main features of this change may be summed up under four heads:

1. The feelings constitute the basal factor in life. It

is through these that proper response to stimuli is secured and life preserved. The development of intellect aids in this process, but the chief function of the intellect is to enlighten the will and permit more suitable response. In a word, feelings furnish the motive power of life while intellect acts as the guide. That the intellect may perform this function suitably, it must be provided with the best available knowledge.

2. Education should not only supply to the individual the most valuable knowledge, but it should furnish him with those moral qualities which will fit him to take his part in controlling social action, for in a democracy government must be conducted, not by an hereditary class, but by the intelligence and good will of all the members of the social body. The teacher, therefore, in properly training the citizen, renders it unnecessary for society to support a ruling class and to subordinate their freedom of action to it. Education, in this concept, is primarily for the good of the state and it may minister only in an indirect way to the needs of the home and the church. It is, in fact, to be made a fit instrument to substitute for the controlling power of the church and of an hereditary aristocracy.

3. The social significance of education, emphasized by Plato and by such modern educational writers as Otto Willmann, is to be found in its function of assimilating each new generation to the social life established by its predecessor. It is to preserve the continuity of the past and present, hence it is the chief business of education to transmit to each generation the five-fold spiritual inheritance of the race. John Fiske and Murray Butler have contributed largely to the popularizing of this concept of education.

4. Finally, President Hall, and the school of evolutionists in general, regard education as the means by which society is to achieve its progress. Society consciously resists change and seeks to perpetuate itself through education, but unconsciously, by a process of natural selection, progress is being achieved. These educators conceive it to be the specific function of education to lift this progressive change into consciousness and make it the deliberate aim of society.

This view is closely allied to the doctrine of eugenics, but its scope is much wider. The eugenists seek to improve the race by selecting the parents of the future generation. The school of education which we are here considering aims at selecting out of the masses of the children those who are best suited to control and direct social progress and at equipping them for effective work in this direction. Moreover, the evolutionary school lays particular emphasis on the necessity of abandoning the idea of building up in the pupil definite adjustments to a fixed environment and insists that it is the business of education to develop in each pupil the power of rapid and easy self-adjustment to a changed and changing environment. In fact, this plastic power is regarded as the chief element in the standard of social selection. That there is value in this view is not to be denied, but it should be remembered at the same time that it contains an element of extreme danger to the stability of social institutions. It is one thing to improve our institutions and quite another to release forces in society which, by their very nature, would tend to destroy these institutions, root and branch.

In fact, the actual working out of our state educational systems under the new ideals and aims has already

profoundly influenced such basic social institutions as the family and the church. The state school has tended to empty the Protestant churches and to weaken the influence of the Protestant denominations on society and on government. Nor has its influence on the home been less corroding.

When the state took over the control of the school and compelled all the children to attend, it was, of course, obliged to control the physical conditions so that the children's health might not be menaced. The state's activity in this direction did not stop with the control of school architecture and with the securing of proper sanitation and hygienic conditions. Medical inspection was found to be necessary and vaccination was resorted to at times in order to prevent the spread of dangerous diseases. From this to the examination of the children's eyes by a school physician, and the supplying of suitable glasses, was an easy step. Since adenoids were found to affect the children's progress in their studies, it was natural enough that they should be removed and the school supplied the surgeons for the work. Their progress demanded improved text books and the school supplied them. The children, at times, were found to need physical care which was not being supplied at home, hence the employment by the school of district nurses. Many of the children in some of our large cities were not sufficiently nourished nor taught to eat properly in the home and this function also was taken over by the school. The parents, in many cases, were foreigners, unacquainted with our language or institutions, and hence the schools had to supply not only instruction, but the proper models of conduct. The homes were often gloomy and the surroundings uninviting. This was remedied by the

school through picnic parties and other pleasure expeditions to the country, for in this theory the children belong to the state and should be cared for by it.

Now the natural home was called into existence chiefly through the six-fold dependence of the infant upon its parents. The child depends upon its parents for his existence, for love, for nourishment, for protection against danger, for remedy in disaster, and for the models of his imitative activity. In some of our cities, at the present day, the school has taken upon itself to meet the latter five of these needs of childhood, thus rendering the home unnecessary for everything except for the procreation of children. The one step necessary to complete this process is the granting of a state subsidy to motherhood and the doing away with marriage altogether, a step which was actually advocated a few years ago by the principal of a large private school in one of our big cities.

Thus, in three-quarters of a century, the schools of this country have undergone a radical transformation. From the isolated district school supported by a few families and controlled by the local pastor, we have advanced, if it be advanced, to a school system that is strongly centralized, supported and controlled exclusively by the state, from which religion and the influence of the church are completely banished, and which is not only independent of the home and the local community, but which takes upon itself to perform five out of the six essential functions of the home. This school system, instead of strengthening and perfecting the home and the church, suppresses and replaces both of them. It must not be supposed, however, that the loss of power by the home and the church means a proportionate gain by the state. The converse of this is the fact.

The state draws its main support from the home and the church, and with the decay of these institutions, the Christian state also declines. Christian society needs the home, the church and the state, and it cannot long survive the loss of any one of these institutions. The relationship between the functions of these three institutions finds apt illustration in the interdependence of the lower forms of life. The flowering plant depends upon the insect for its perpetuation, and if the insect were to disappear, the flowering plant would disappear with it. Where, however, insects grow too numerous, they destroy all vegetation and die as a result of absence of food. The birds, by controlling the spread of insect life, are thus the natural means of preserving both the plant and the insect, while they draw their own support from both of them.

During the last two decades there has appeared a growing tendency in certain educational and industrial circles to return to the individualistic aim of education. At present, as in the days of Horace Mann, the guiding influence is German. The achievements of the German Empire along industrial and technical lines have called the attention of our manufacturers and merchants, of our educators and statesmen, to the need of adequate industrial and technical training for our people if they are to compete successfully in the markets of the world.

Neither in the German Empire nor in the United States has the vocational type of school been as yet definitely crystallized. At present, the achievements of Dr. Kerschensteiner, director of the Public Schools of Munich, are being closely studied in this country and the system of vocational schools which he was instrumental in carrying to a high degree of perfection seems destined to exert a marked influence on the growing movement

here. It is worthy of note that both in Germany and in this country the movement for vocational education was inaugurated by private enterprise and had its inception in the individualistic aim of education which was being crowded out of the state school system. The organization of the movement, the centralizing of control, and the diverting of its aim from the individual welfare to the welfare of the country, bear many striking resemblances to the school movement in the middle of the last century. The brief account given of the growth of the movement in Munich by Dr. Kerschensteiner is most suggestive: "If we consider the history of the most successful undertakings of this nature we notice an abundance of that spontaneous public-spirited activity which disregards reward; an administrative energy in individual men and women worthy of all admiration; a readiness of sacrifice, and a highly developed altruism among the intellectual élite of society. But, in spite of all this, most of the organizations mentioned do not produce the results which might be expected of them. In particular, most of them suffer from one great defect—the lack of an appropriate organization as regards civic education. With few exceptions, these public-spirited endeavors can be immediately ascribed to two motives,—intellectual or artistic culture for its own sake, and pecuniary advantage. This is easily understood of an age in which scientific knowledge showed a hitherto unheard of growth, and the economic development of Germany received an impulse which in a short time converted a poor country into a prosperous one. In fact, we find all the important educational facilities organized entirely according to these two points of view; that is to say, all trade and continuation classes, whether they are main-

tained by the nation, the local authorities, or by private individuals. To spread knowledge and to insure dexterity were the principal aims of these societies. But knowledge and skill can be employed selfishly as well as altruistically, and they certainly will be employed selfishly if in these very schools we neglect to direct the attention of the masses to general considerations and to curb the selfishness of the individual while at the same time strengthening his feeling of solidarity."[1]

In the United States, vocational schools were, in many instances, founded by private enterprise, and attempts have been made to have a system of vocational schools developed by the government as separate and independent of the general state system. But the trend seems decidedly towards the incorporation of vocational schools in the general state system and means will have to be sought to counteract the selfish tendency that is inseparable from schools whose explicit aim is increase of individual efficiency and increased power of the individual to enlarge his earning capacity.

[1] Kerschensteiner, Educ. for Citizenship, Eng. Trans., Chicago, 1911, pp. 8–9.

CHAPTER XXI

THE CATHOLIC SCHOOL SYSTEM

The Catholic school, as we have pointed out elsewhere, has existed from early Christian days and it has enjoyed unbroken continuity. Wherever the Church went the school went with it or followed immediately in its wake. Nor is this true of the school alone. Unbroken continuity applies, in a large sense, to Catholic school system or systems, for the Catholic school has partaken of the unity of the Church and shared in its principles of organization. The purpose of the school, its curriculum, its organization, its ideals, and the training of its teachers, are all matters of concern to the Church as a whole, rather than of the local pastor and his congregation. It is true that the support is usually drawn from the local community, but the control is rarely left exclusively to isolated groups. From a very early date, the qualification of the teacher was determined by general Church authority and the doctrine taught was under general supervision and control.

One of the most striking characteristics of the Catholic Church is the plasticity which permits her to adapt herself to the conditions which she finds in every nation and under every form of government. This plasticity also is shared by her schools, hence we find that, while the Catholic school system everywhere maintains certain definite aims, embodies certain definite principles, both in its teaching and in its organization, nevertheless, in each country the schools have adjusted themselves to the vital needs of the people whom they serve.

To the casual observer, the Catholic schools of the

United States seem to differ as markedly from the Catholic schools of Germany, or of England, as the state systems of this country differ from European systems. This is due to the fact that the unity and continuity is to be sought not so much in the externals or accidentals of the Catholic school systems as in their great underlying principles. In many respects, therefore, the Catholic school system in its development and in the form which it has assumed in different countries offers a striking contrast to the school systems developed by non-Catholic bodies and by the state.

The Church, during the Middle Ages, controlled education in all Christian countries. It was through her authority that schools were built, that teachers were licensed, that the elements of the curriculum were determined, and, while she always utilized the school for the religious education of her children, and for the special preparation of her priests, she did not confine the scope of the school to these aims. The generous impulses of her conscious life nourished into vigor all the capacities and faculties of man.

Through her liturgy and her organic teaching, she quickened the aesthetic sense and furnished inspiration and guidance to the fine arts. Music, painting, sculpture, architecture, inlaid work, embroidery, illuminating of manuscripts, ornamental metal work, poetry and literature were all encouraged and supported by her, while in her monastic schools she taught the children of the people agriculture and the industrial arts.

The Church's schools were everywhere, and if the teaching of Latin was a recognized aim, and if Latin was, for a long time, the language used for imparting the instruction given, this procedure was fully justified by the

circumstances of the times. The vernacular tongues of the nomadic tribes and nascent nationalities of Europe were not developed and were, for the most part, wholly devoid of literary content. Moreover, the use of a common language by the upper classes was no small factor in welding into unity the warring elements that swept down over Europe in the great invasions.

When the proper time came, the Catholic schools of Europe were not behind others in using and developing the vernacular. The printing press was necessary before any large development in this direction could take place, and it was used by Catholics as well as Protestants from the beginning for the general diffusion of knowledge and for the cultivation of the vernacular. And while Catholic peoples did not feel the same necessity for the popular reading of the Bible as was felt by the Reformers who pinned their salvation to this practice, the Church did not fail to appreciate the great value of the Sacred Scriptures or to take steps for their diffusion among the people even before the printing press lent its aid to the work.

As an illustration of this, attention may be called to the work of the Brethren of the Common Life. This society grew out of the missionary zeal of De Groote who, after resigning his prebends, in 1373, and living in solitude for seven years, devoted the remaining years of his life to the spiritual regeneration of the people of his native land. The group of disciples which gradually grew up around him under the headship of his successor, founded the monastery of Wendesheim in 1386 which, from this time forward, remained the center of the new organization. The members of this society took no vows; they neither asked nor received alms; their first aim was to cultivate

the interior life and they worked for their daily bread. The brothers and sisters of this community occupied themselves exclusively with literature and education. Those among the brethren who were ordained, also took up the work of preaching. Parker, speaking of the attitude of the Church towards the dissemination of the vernacular Bible, says:

"In fact, before the Reformation there are many examples of Catholic authorities' putting the whole or parts of the Bible into the vernacular, to be used as a source of moral lessons by the common people. One of the most notable examples of this on a large scale is found in the activities of the Brethren of the Common Life. . . . They were orthodox Catholics organized to copy and disseminate manuscripts for moral and religious instruction. These manuscripts were largely in the Dutch language and were often distributed gratis."[1]

The Brethren of the Common Life may also be taken as a good illustration of the development of Catholic school systems. They found the Netherlands sunk in ignorance and illiteracy. Gilliat-Smith, writing in the Catholic Encyclopedia under the caption "Brethren of the Common Life," gives a brief résumé of the conditions and accomplishments of the community: "When Groote began, learning in the Netherlands was as rare as virtue; the University of Louvain had not yet been founded, and the fame of the schools of Liège was only a memory. Save for a clerk here and there who had studied at Paris or Cologne, there were no scholars in the land; even amongst the higher clergy there were many who were ignorant of Latin, and the burgher was quite content if when his children left school they were able to read and

[1] Parker, Mod. Elem. Educ., Boston, 1912, p. 43.

write. Groote determined to change all this and his disciples accomplished much. Through their unflagging toil in the scriptorium and afterwards at the press they were able to multiply their spiritual writings and to scatter them broadcast throughout the land, instinct with the spirit of the 'Imitation.' Amongst them are to be found the choicest flowers of fifteenth century Flemish prose. The Brethren spared no pains to obtain good masters, if necessary from foreign parts, for their schools, which became centers of spiritual and intellectual life. . . . Before the fifteenth century closed, the Brethren of the Common Life had studded all Germany and the Netherlands with schools in which the teaching was given for the love of God alone. Gradually the course, at first elementary, embraced the humanities, philosophy, and theology. . . . More than half of the crowded schools—in 1500 Deventer counted over 2,000 students—were swept away in the religious troubles of the sixteenth century."

The work begun by the Brethren of the Common Life was taken up in the Reformation period and later by other religious communities who were animated by similar disinterested motives and who understood the values of correct training in the teacher and of system in the work of education. The work of the Society of Jesus at this period is too well known to need comment. Samuel Chester Parker, Dean of the College of Education in the University of Chicago, will scarcely be accused of bias in favor of Catholic education. In commenting on the Catholic reform, inaugurated by the Council of Trent, he says: "In the field of secondary education this reform was carried out by the Jesuits, whose schools were the most efficient in Europe. This efficiency was due to the

systematic organization of the schools, the thorough preparation of the teachers, and their devotion to the profession of teaching."[1] The work of the Society was chiefly secondary and higher education, but both in Europe and in America it contributed no small share to the spread of popular education.

In contrast to the work of the Jesuits, the Brothers of the Christian Schools devoted themselves, at first, exclusively to the work of elementary education and they have not lost this dominant aim down to the present day. The scope and spirit of this community is also set forth in Parker's "History of Elementary Education" (Chapter V) from which we take the following excerpts which may be regarded as representative of the verdict of non-Catholic scholarship concerning the work of De La Salle and his spiritual children:

"The organization of the Brethren was due to the efforts and self-sacrifice of Jean Baptiste de La Salle (1651–1719), of noble French family, wealthy in his own name, and enjoying a good income as a canon of the cathedral at Reims. La Salle became interested in the education of the poor as a result of assisting in the organization of a number of charity schools for boys. He became adviser to the masters of these schools, established them in a house near his own, organized their lives, and directed their teaching. Gradually he acquired such an interest in the work that he decided to devote his life to the development of an organization the purpose of which was stated above. He first organized a community of such teachers in his native town of Reims, next in Paris, and finally in all the larger cities of France. At the time of his death in 1719 the organization numbered 27

[1] Parker, *op. cit.*, p. 96.

houses, 274 brothers, with 9,000 pupils. By the time of the French Revolution (1789) there were 121 houses, 800 brothers, and 36,000 children being taught in the schools.

"The organization depended entirely on charity for its support, the members pledging themselves to remain poor and to accept absolutely no fees or other remuneration from scholars. . . . In order to keep the society devoted only to elementary education, and to keep it from turning its attention to the more interesting fields of secondary and higher education, the study and the teaching of Latin were prohibited at first. . . . In order to assure further that the members would remain devoted to their profession of free elementary instruction, the young men who were received as candidates for membership as early as sixteen years of age were permitted to take vows for only three year periods, and were not allowed to take perpetual vows before they were twenty-five. By these means a very select and very devoted body of teachers was secured."

The organization which enabled the Christian Brothers to accomplish so much in the cause of education is thus set forth by Parker: "La Salle possessed unusual talent for organizing methods of teaching. In order to give his society the permanent benefit of his ideas, he wrote manuals of instruction, laying down general principles of teaching and detailed devices for classroom management. The most important of these was his 'Conduct of Christian Schools,' written about 1695 and revised and printed in 1720. The Brothers of the Society, when sent to open a school, found in this manual definite directions to follow in having a building constructed, in arranging the schoolroom, in securing books and supplies, and in managing

and teaching the classes. Brothers were never sent singly to open a school but always in pairs, and since they had been thoroughly trained in teaching before being sent out, the schools which they opened always attracted especial attention by their superiority. So much was this the case, that it commonly happened that parents who could afford to send their children to pay schools sent them to the charity schools of the Brethren instead. This aroused the jealousy of the guilds, of writing masters, whose income was threatened in this way, and often resulted in persecution of the Brethren.

"Apart from the general training in teaching and management which the Brethren received, there is one special phase of their methods which accounts in a considerable degree for their superiority, namely, the substitution of class instruction for the methods of individual instruction."

The simultaneous method of instruction was mentioned by Comenius and it was actually put in practice in the Congregation of Notre Dame on the recommendation of St. Peter Fourier. It also appeared in other isolated instances. It was, of course, employed in the universities, but it was through the Christian Brothers that it was effectively introduced into general practice in elementary education. With this method was inseparably connected the system of grading the classes in the elementary school. These two features of elementary education have long since become universal. A characteristic feature of the Christian Brothers' schools in France at this early date was instruction in the vernacular before the pupils were taught Latin, a practice which likewise has become universal in elementary education. But probably the biggest contribution made to elementary education by the

Brothers is to be found in their system of normal school training for elementary teachers. A hundred and fifty years later we find the state of Massachusetts, after a prolonged agitation in the matter, establishing its first normal schools.

The Institute of the Brothers of the Christian Schools offers a good illustration of the system that sprang from the spirit of the Catholic Church and from the nature of her teaching agencies. If the condition of the schools of early Massachusetts be contrasted with the Christian Brother schools, one of the effects of Protestantism on educational progress will be readily perceived. In contrast to the local districts, which fought bitterly against organization and still in several instances withstand the centralizing pressure brought to bear by the state and by commercial enterprise, stands this Institute of teachers with its world-wide scope and influence.

The Brothers are governed by a superior-general elected for life by the general chapter. He is aided by assistants who, at the present time, number twelve. He delegates authority to the visitors, to whom he confides the government of districts, and to directors, whom he places in charge of individual houses. With the exception of the superior-general, all the offices are temporary and renewable. The general chapters are convoked at least every ten years.

Teaching is not a temporary occupation among the Brothers. It is accepted as a call from God and the individual devotes all his zeal and seeks to attain his perfection and his eternal reward in the faithful discharge of his duties as a teacher of the poor. He renounces, permanently, all earthly reward for his labors and seeks, through unselfish motives, to benefit and uplift the children

of the poor through the instruction which he imparts not only in the doctrines of revealed religion, but in the practical conduct of life. His own life is rendered effective by example in inculcating social virtues. The organization as a whole is dominated by the spirit which animates its several members. A convincing proof of this may be seen in the way the Institute and its members have met social storms and upheavals and persecution from the states which they serve so faithfully.

At the outbreak of the French Revolution, we find them educating, gratuitously, 36,000 children of the poor who would otherwise have been left in ignorance. The state's reward of their labor in the Revolution was imprisonment and martyrdom. All the schools of the Brothers in France were closed and the younger brothers were enrolled in the army of the Convention. In 1798, the Institute had only twenty members wearing the religious habit and exercising the functions of education, out of 920 brothers who were occupied in teaching the French schools at the outbreak of the Revolution. Four years later, they were again permitted to take up their work and, forgetful of the ingratitude of the people whom they had served and of the cruel wrongs that had been inflicted upon them, they returned to their life's work without a murmur. Everywhere through out the country, the municipalities recalled the Brothers and besought them to continue their beneficent work in their midst. The community was rapidly reorganized. In 1821, the Institute had more than regained its former strength: it numbered 950 Brothers, 310 schools, and 50,000 pupils.

In the following years there ensued a grave pedagogical struggle between the Brothers and the powerful advocates of the Lancasterian methods from which the Brothers

emerged triumphantly, thus giving proof of the permanent value of the fundamental principles of their methods and organization. In 1829, the Brothers were teaching 67,000 French children. Moreover, the organization during this period and afterwards spread rapidly throughout the world. "Belgium received Brothers at Dinant in 1816; the Island of Bourbon, 1817; Montreal, 1837; Smyrna, 1841; Baltimore, 1846; Alexandria, 1847; New York, 1848; St. Louis, 1849; Kemperhof, near Coblenz, 1851; Singapore, 1852; Algiers, 1854; London, 1855; Vienna, 1856; the Island of Mauritius, 1859; Bucharest, 1861; Karikal, India, 1862; Quito, 1863. In all of these places, the number of houses soon increased, and everywhere the same intellectual and religious results proved a recommendation of the schools of the Brothers."[1] In 1874, the schools of the Institute numbered 1,149, the teachers, 10,235, and their pupils, 350,000. The French people might well be proud of the achievements of their sons in this teaching community. In the official report of the Universal Exposition of Paris, in 1900, we find the following statistics: "The establishments of the Institute of Brothers of the Christian Schools, spread all over the world, number 2,015; they comprise 1,500 elementary or high schools; 47 important boarding schools; 45 normal schools or scholasticates for the training of subjects of the Institute, and 6 normal schools for lay teachers; 13 special agricultural schools, and a large number of agricultural classes in elementary schools; 48 technical and trade schools; 82 commercial schools or special commercial courses."

A few years later, we find France suppressing the Chris-

[1] Brother Paul Joseph, Cath. Encyc. Art. Inst. of the Bros. of the Chris. Sch., which see for full account.

tian Brothers, with all the other religious teaching communities, in order to establish a despotic centrally-controlled state system of schools from which all religious instruction is eliminated. The army of splendid teachers thus lost to France did not, however, abandon their life work. They did not take up the work of teaching for earthly reward, nor did they ever give up their calling because of the ingratitude or persecution of those whom they served. The Brothers expelled from France, went out into the whole world to strengthen and expand the work of the Institute in other countries, where they shall remain until France gains a realization of its loss and appeals once more to the zeal and disinterestedness of its religious teachers to restore national life and national virtue to a long-suffering country. Between 1904 and 1908, 222 houses were founded in England, Belgium, the Islands of the Mediterranean, the Levant, North and South America, the West Indies, Cape Colony and Australia. The work of the Institute is widely and favorably known for the part that it has taken in the work of Catholic education in the United States and Canada.

We have discussed at considerable length the scope and work of the Institute of the Christian Brothers as an illustration of the genius and spirit of Catholic education. This Institute, however, is but one of a large number whose history runs along similar lines and whose achievements stand as monuments to the zeal and disinterestedness of the religious communities which have borne the burden of Catholic education in this and other lands. It would require an encyclopedia to record their deeds and to analyze each separate community. Each has its own characteristic features and its own peculiar scope, but they are all guided by the same fundamental aims and

are animated by the same spirit of self-sacrifice and devotion to the spread of truth, both religious and secular, to the formation of character, and to the cultivation of moral and social virtues, which have for their enduring foundation faith in God and love for fellow-man.

From the figures given in the Official Catholic Directory, for 1916, it would appear that there are in the United States more than 13,000 members of various religious communities of men. Some of these communities, such as the Christian Brothers, the Brothers of Mary, the Xaverian Brothers, etc., are devoted exclusively to the work of teaching. The members of the Society of Jesus occupy themselves with secondary and higher education together with missionary and parochial work. Most of the communities engage in educational work in addition to the more specific objects of their foundations.

The bulk of elementary education in our Catholic schools is conducted by various teaching Sisterhoods. We have no exact statistics, however, concerning the number of Sisters employed in teaching. Many of the communities devote some part of their energy to works of charity, such as the care of the aged and infirm, the conduct of hospitals and nursing of the sick poor. A few communities are devoted exclusively to the work of reform, and a small number are contemplatives who do not engage at all in the work of education. A few of the communities have given no returns concerning their membership. The figures available give 83,573 as the total number, including novices and candidates. There are 45 distinct Franciscan communities, having a total membership of 13,956; 20 communities of the Sisters of Charity, having a membership of 10,410; 28 communities of Sisters of St. Joseph, having a membership of 8,561;

3 distinct congregations of Sisters of Notre Dame, with a total membership of 7,352; the Sisters of Mercy are represented by 56 communities, with a membership of 7,718; 30 different Dominican communities have a total membership of 6,129; 28 Benedictine communities have a membership of 1,340. The Ursuline nuns in the union and in 16 separate houses have a membership of 1,931; 3 congregations of the Sisters of the Immaculate Heart total 1,576; there are 1,523 Sisters of the Good Shepherd; 1,289 Sisters of Providence; 1,246 Sisters of the Precious Blood, distributed in 3 communities; 1,158 Religious of the Sacred Heart; 1,134 Sisters of the Holy Names; 1,047 Sisters of the Holy Cross; 980 Sisters of the Holy Family of Nazareth; 966 Presentation nuns in 11 communities; 810 Visitandines in 20 houses; 800 Little Sisters of the Poor; 782 Sisters of Charity of the Incarnate Word; 766 Sisters of Loretto; 593 Poor Handmaids; 556 Sisters of St. Agnes, and 9,944 sisters in 86 smaller communities.

The number of novices and candidates given in the various reports total 8,393, but this number is much too small, many of the communities having failed to make returns separately, having either included the novices and candidates in their total membership or having omitted them altogether. The educational work of this army of Catholic teachers is summed up as follows in the Directory for 1916: seminaries, 85, with a student enrollment of 6,200; colleges for boys, 210; academies for girls, 685; parish schools, 5,588, with an enrollment of 1,497,949; orphan asylums, 283, with an enrollment of 48,089. To this should be added several colleges for women conducted by Sisters.

In a certain sense, each teaching community represents a system of education peculiarly its own. It trains its

teachers, carries on its own educational traditions and has its distinctive literary predilections, and has more or less distinctly formulated its own methods. It is evident, of course, that further organization and centralization is both desirable and necessary. This, too, is provided for in the genius of the Church.

The elementary schools of each diocese are under the jurisdiction of the bishop, nor does this jurisdiction terminate with the elementary schools. The secondary and higher schools, when not under his complete control, are subject in a varying extent to his jurisdiction. Thus, each diocese tends to bring all its schools into a unit system with as little interference, however, as the circumstances will permit with the spirit and the work of the several teaching communities which labor in the diocesan schools.

Another element that had to be dealt with by our Catholic schools is found in their tendency to organize along national lines. The parents and the children, frequently, could not speak English and the work of education had to be undertaken in their several tongues and carried on in the various vernaculars until such time as sufficient familiarity with English was attained to permit of the different nationalities meeting in a single school.

In early colonial days, great difficulty was experienced in providing teachers for our Catholic schools. The pastor frequently taught the school himself, and when his other duties became too onerous, he employed Catholic laymen and women for the work. In the missions conducted by religious communities, the conduct of the school was an easier matter, as the teachers were supplied by the communities. In the course of time, various religious

communities were obtained from Europe for the work of Catholic education and other communities were founded here. With the tide of Catholic immigration during the middle and the latter half of the nineteenth century, the demand for religious teaching communities became very urgent, and, in spite of the generous response from European countries and from our own girls, the demand is still much greater than the supply.

The bishops of the United States were, from the early days, keenly conscious both of the need of Catholic schools and of the need of standardizing and organizing the schools of each diocese. When it became evident, as a result of the controversy in New York between the Catholic schools and the state systems, that religion was henceforth to be excluded from the curriculum of state-supported schools, the Catholic Church set to work with renewed vigor to build up its own system. The Second Plenary Council of Baltimore, held in 1853, took up the matter and urged the building up of Catholic schools throughout the country: "We exhort the bishops, and in view of the grave evils which usually result from the defective education of youth, we beseech them through the bowels of the mercy of God to see that schools be established in connection with all of the churches of their diocese; and, if it be necessary and circumstances permit, to provide from the revenues of the church to which the school is attached, for the support of competent teachers."[1] The Second Provincial Council of Cincinnati, held five years later, issued a decree with a similar purpose in view: "It is the judgment of the Fathers that all pastors are bound, under pain of mortal sin, to provide a Catholic school in every parish or congregation subject to them,

[1] Decreta Conc. Prov. et Prov. Balto., n. 13, p. 47.

where this can be done; and in order that each Ordinary may know what are the parishes in which the obligation exists, they decree that the Tridentine Law[1] is to be practically enforced, by which the rectors of churches are required each year to render an exact account to their Ordinaries of all the revenues accruing to their churches in any way, which they therefore strictly enjoin as to be observed by the aforesaid rectors."[2]

The efforts of the Church towards extending Catholic education in the United States and towards perfecting and systematizing the work of existing Catholic schools was further manifested in an "Instruction to the Bishops of the United States Concerning Public Schools" issued by the Congregation of the Propaganda in 1875, and by the decrees of the Third Plenary Council of Baltimore in 1884. In its instruction the Congregation of the Propaganda points out the urgent need of perfecting our Catholic schools, both for the sake of the Church and for the good of the Republic: "All are agreed that there is nothing so needed to this end as the establishment of Catholic schools in every place—and schools in no way inferior to the public ones. Every effort, then, must be directed towards starting Catholic schools where they are not, and, where they are, towards enlarging them and providing them with better accommodations and equipment until they have nothing to suffer, as regards teachers or equipment, by comparison with the public schools."[3]

The Third Plenary Council took active measures to realize the Church's desire for a more perfect system of Catholic schools. In the first place, they made it binding

[1] S. xxii, c. ix.
[2] Conc. Prov. Cinc. Acta. et Dec. Decretum vi, New York, 1886.
[3] Conc. Plen. Balt. iii, Acta, Dec. 279 Append., Baltimore, 1886.

upon all Catholics to build up and support Catholic schools and to send their children to them. The following exhortation was issued by it to the laity: "Therefore we not only exhort Catholic parents with paternal love, but we also command them with all of the authority in our power, to procure for their beloved offspring, given to them by God, reborn in Christ in Baptism, and destined for Heaven, a truly Christian and Catholic education, and to defend and safeguard them from the dangers of an education merely secular during the entire period of childhood and youth; and therefore to send them to parish schools or others truly Catholic, unless perchance the Ordinary, in a particular case, should judge that it might be permitted otherwise." The Fathers of the Council did not content themselves with exhorting the clergy and the laity in this important matter. They issued the following decree which was made binding on bishops and clergy as well as on the laity: "Near each church, where it does not yet exist, a parish school is to be erected within two years from the promulgation of this Council, and is to be maintained *in perpetuum*, unless the bishop, on account of grave difficulties, judge that a postponement be allowed. . . . All Catholic parents are bound to send their children to the parish schools, unless either at home or in other Catholic schools they may sufficiently provide for the Christian education of their children, or unless it be lawful to send them to other schools on account of a sufficient cause, approved by the bishop, and with opportune cautions and remedies. As to what is a Catholic school, it is left to the judgment of the Ordinary to define."[1]

The Council, besides taking measures to secure a suffi-

[1] Conc. Plen. Balt. Ter. Acta Dec. 196–9.

cient number of schools and the general attendance of Catholic children, took up the matter of organizing definite diocesan school systems. As a result of the legislation then enacted in this matter, school boards, consisting of priests of the diocese, have been appointed by the bishops in two-thirds of the dioceses of the United States. The bishop and his vicar-general are *ex officio* members of the school board. Provision is usually made for diocesan superintendents, for school visitors and examiners, for teachers and, in many instances, for community inspectors.

The fruits of this appeal to the faith and zeal of our Catholic priests and people is sufficiently manifest in the figures given above. Progress has also been made towards organizing the parochial schools into diocesan systems, but the unifying and perfecting of the Catholic school system of the United States is a matter of no little difficulty. It requires time and opportunity for the proper training of school officers, and for the creating of other agencies rendered necessary by the nature of the task.

The need of a definite system which would include all our Catholic schools is as apparent as the difficulty of creating such a system. Our people frequently change their residence from one section of the city to another, or follow their employment from one state to another. Under such circumstances it is evidently a great disadvantage that the children taken out of one parochial school should find themselves wholly out of place in another school which happens to be conducted by a different religious community with its predilection for its own curriculum and methods. It is also much to be desired that a child passing from an elementary school to a secondary school should be able to do so without

feeling a break in the continuity of the educative process, and the same is true of the need of close articulation between the secondary and higher educational institutions. In these various respects there is still much room for improvement. Before this can be wholly achieved, our teaching forces must gain a clear realization of the difficulties of the situation and an understanding of the remedies to be employed. Until this educational propaganda has been sufficiently carried out, legislation will have little effect.

Each of the multitude of teaching communities engaged in the work of education in the United States has, as was pointed out above, its own peculiar system, its own normal school, its own ideals and traditions concerning the content of the curriculum, the grading of the classes, the text-books, and the methods to be employed. This, of course, is infinitely better than the old district system of Massachusetts, in which each school was isolated and where there existed neither normal schools for the training of teachers nor worthy ideals in matters of curriculum, text-books or methods, but where many different communities are employed in a single city, it is evident that something should be done to secure a reasonable uniformity. This need is still further intensified by the fact that the Catholic schools are frequently obliged to meet the needs of the various nationalities that are pouring into our cities, bringing with them their own vernacular and national customs.

It should be further noted that, were each diocese to go its own way, a solution of our difficulty could not be had, no matter how perfect the diocesan system might be. There are a hundred dioceses in the United States, and were the community systems entirely removed, to be sub-

stituted by diocesan systems, we would merely reduce somewhat the total number of systems and remove the conflict from local areas, but our people would still suffer when moving from diocese to diocese, as they are so frequently obliged to do under present economic conditions. Moreover, this hundredfold division would weaken immeasurably the Catholic educational cause. It is true that a good diocesan system is the first step towards a general Catholic educational system, but this step cannot be taken effectively until diocesan school superintendents, or other diocesan school officers, be properly trained for the difficult task assigned them. Where shall this training be obtained? Not in the normal school of any one religious community. Such a procedure would at once raise up difficulties with all the other communities in the diocese. If union and system is to be obtained, the various factors must meet on neutral ground and the training of the diocesan officers must be broader than that obtainable in any single community.

The Third Plenary Council of Baltimore, instinct with the genius of Catholic organization, not only urged the building of Catholic schools and the organization of diocesan systems, but took a further step to secure unity of the entire Catholic school system of the country by petitioning Rome to found a great Pontifical University in this country which would serve as the center of unity for the entire system of Catholic schools and which would offer the highest training for supervisory officers and faculties in Catholic educational institutions of all grades.

In founding the University and defining its scope, Pope Leo XIII made provision for its thoroughly catholic character. It was to admit to its faculty and its student body, without discrimination, members of the various

religious communities and teaching orders, the secular clergy and the laity, and its influence was to extend to all other Catholic educational institutions in the country, serving to bring unity, harmony and high standing to all of them in all things pertaining to Catholic faith, morals, and enlightened scholarship. He says, in His Apostolic Letter, "Magna Nobis Gaudia," under date of March 7, 1887: "We exhort you all that you shall take care to affiliate with your university, your seminaries, colleges, and other Catholic institutions according to the plan suggested in the Constitutions, in such a manner as not to destroy their autonomy."

From its inception, the idea of a training school for the teaching profession was associated with the work of the University. Archbishop Keane, its first Rector, in an article on the Universities of France, published in 1888, said: "Our seminaries and colleges, already numerous and excellent, must be still more multiplied and perfected in order to meet the demands of a rapidly increasing and steadily progressing Catholic population. The religious orders and congregations established for that special work are already in sore need of helpers in so wide a field, and these must be prepared for their important task, not only by especially wide and profound studies, but also by the normal training that will fit them to impart knowledge successfully."

It was to further the interests of unity and high standards in our Catholic educational institutions that Bishop Shahan, the present Rector of the University, founded the *Catholic University Bulletin*, in January, 1895. In the Prospectus, he says: "The methods of teaching will receive special attention as well as the history and theories, old and new, of higher pedagogics in general. Questions

and discussions of an educational nature will find frequent treatment in its pages, inasmuch as they affect the actual teaching of the university, by enlightening, suggesting, correcting, and keeping the minds of professors and students ever open to the freshest and healthiest influences that arise from the comparison of the science of teaching in the past and elsewhere with the system in vogue amongst us and the improvements of our own age."

A further step towards unification of our educational forces was taken by the Rector of the University, who issued a call to the colleges and seminaries to organize a Catholic Educational Association. The first annual convention was held in 1904. Bishop O'Connell was elected president, an office which the Rector of the University has since continued to hold. The Association meets annually and issues a volume of its Proceedings. Its membership is representative of the teaching forces of the Catholic schools of the United States, and during the twelve years of its existence it has accomplished much for unity and uplift by bringing together, for mutual benefit and discussion, members of the various teaching communities and the teaching staffs of various educational institutions. The University is gradually assembling about itself, houses of the various teaching communities, and offering to their members the advantages of higher education and training in the science and art of teaching. In 1905 the University opened the Department of Education with the express aim of training diocesan superintendents.

From 1902 onward, professors of the Catholic University gave courses of lectures on Pedagogy at the motherhouses of several teaching communities and at diocesan institutes. In 1911 the Catholic University organized the Catholic Sisters College in which the teaching

is done exclusively by University professors. From that date to the present, some 2,000 Sisters have attended courses at the Sisters College and many have remained to take the degrees of Bachelor of Arts and Master of Arts and a few have attained the coveted degree of Doctor of Philosophy. The graduates of the Sisters College, in many instances, have taken up work in the normal novitiates of their communities. The Sisters College has thus become a factor of great importance, not only in unifying the teaching forces of the several dioceses, but in building up a nation-wide system of Catholic schools.

In 1912 the Board of Trustees of the University prescribed conditions under which Catholic high schools and colleges might be affiliated to the University. In the four years that have elapsed nearly 150 of our leading Catholic high schools and academies have taken advantage of this opportunity. The University, through a board of professors, regulates the curriculum of these schools. The students' examinations at the close of each year are conducted under their direction and the papers are examined by University instructors. The teachers in many of these schools have been trained in the University, a fact which contributes in no small degree to the unification of the system.

The Department of Education in the University contributes still further to the unifying influence in the Catholic education of this country by the training which it affords to prospective teachers in Catholic schools of all grades, and by the *Catholic Educational Review*, which was founded in 1911 and which is conducted under the auspices of the Department of Education. To this should be added a system of text-books and manuals

which are being brought out by the instructors of this department.

It will thus be seen that the unity of the Catholic school system is being achieved through an appeal to internal forces instead of through coercive legal enactments. The Church is never hasty in her actions. She counts upon the good-will, the faith, obedience and disinterested motives of her children. Hence the organizations which have grown up within her membership have a vitality and power wholly unknown to societies which rely upon the legal enactments of majorities to achieve their aims.

In this respect, the contrast between the organization and development of the state school systems of this country and the Catholic school system is illuminating. The state systems did not emerge until the middle of the nineteenth century and a national system has not yet been attempted. The recommendations looking towards the establishment of a national university made by the first president of the republic have not yet been carried into effect. Compulsory education laws have been passed in the several states which are enforced by truant officers. The authority of the state has been invoked to compel the local support of schools and various state subsidies have been used as an incentive to secure the proper length of school terms and the proper training of teachers. The only means at its disposal to secure an adequate supply of teachers is an increase of salary, thus reducing the work of teaching from a professional basis to an economic function.

The Church, on the contrary, appeals to the faith and zeal of the Catholics in each parish to support its school; she appeals to the love of parents to make the necessary sacrifices to send their children to Catholic secondary and

higher schools, and her appeals have not been in vain. In her educational work, she relies upon the zeal of her children for the spread of the Catholic faith and of Catholic ideals, and she appeals to their patriotism to secure schools that will give the best possible training for citizenship while not neglecting proper training for membership in the household of the faith. From her endeavors in these respects, there has resulted a Catholic school system in this country which, in extent and efficiency, in the face of grave difficulties, including hostile public opinion and double taxation, constitutes an imperishable monument to the vitality of the Catholic Church in the United States.

CHAPTER XXII

THE CURRICULUM

The curriculum, or course of study, employed by the school for the achievement of the various aims of education has very naturally shared in the profound changes that have taken place in the general concept of the purposes to be achieved by the school. In like manner, the curriculum in the different units of the school system naturally undergoes changes in accordance with the more or less clearly defined purposes of the several units and in accordance with the changes brought about in the various departments of human knowledge by the research work of scholars.

Again, the curriculum of the elementary or *Volksschule* of Prussia is intended as a complete education for children in the humbler walks of life. Those more fortunate children who are destined for higher careers, pass up to the University by way of the *Vorschule* and the *Gymnasium.* In this country, on the contrary, the elementary school is intended to meet the needs of those who terminate their school career upon graduation from the eighth grade and the needs of those who, after completing its course, are destined to receive the highest university or professional training afforded in the land.

In Europe generally, the higher educational institutions gradually worked their way downward to meet the needs of the people; whereas in this country the starting point is to be found in the elementary school, which, after completing its own development, gave the preparation and the stimulus for the development of the secondary school. In recent years, it is true, the university has

reached down to the secondary school and has undertaken to control its curriculum and to fix its standards.

In the curriculum of the Catholic school, religion holds the central place, the remaining branches being arranged around it and in relation to it; whereas, since the days of Horace Mann, religion has been banished from the curriculum of the state school and in its place other centers of organization have been sought. The history of the curricula of the state schools and the Catholic schools has very naturally run along distinct lines, though from the nature of the case they never can be wholly independent of each other. The Catholic school, while not following the public school system in the curriculum or its organization, must, nevertheless, take into account the various studies taught in the public schools and the extent to which the several studies are carried in each grade.

Professor Parker, speaking of the curriculum in the early schools in Massachusetts, says: "The narrow religious conception of elementary education which had developed during the Reformation and the period of religious strife continued in force down to the nineteenth century. This conception was represented in its most intense and narrow form among the Massachusetts Puritans, and paralleled the narrowness of their life in its other aspects."[1]

The attitude of the adult community towards art, science, and learning is inevitably reflected in the curriculum of its school. In the Catholic school the local attitude is tempered and modified by the wider and higher educational concepts of the Church. In New England, however, there was no dominant external cultural force to modify or broaden the narrow and harsh concepts of the Puritan colonists who, through the local community,

[1] Parker, Hist. Mod. Elem. Educ., Boston, 1912, p. 67.

without assistance or interference from any outside authority of the church or state, determined the curriculum for each local school.

There was little secular English literature read in the Puritan colonies. It is said that there was not even a copy of Shakespeare's plays in Massachusetts during the seventeenth century. The reading of the colonists consisted, chiefly, of the Bible, Bailey's "Practice of Piety," the "Day of Doom" of Michael Wigglesworth, and similar compositions. The Puritan's attitude toward art and music was still more intolerant. "Puritanism habitually regarded religion and beauty as antagonists." Music was forbidden in their churches and was accused of "bewitching the mind with syrenes sound." Parker tells us that "in the seventeenth century, singing grew so uncommon in New England that only some eight or ten tunes were in general use. There were places where only the name of the tune was familiar, the music having been miserably tortured and twisted and quavered into a horrible medley of confused and disorderly noises."[1]

Science had scarcely more influence on the Puritan colonists than had art. They believed that the earth was the center of the universe, and that the phases of the moon should regulate the killing of animals, the harvesting of crops, and many other human affairs. Their belief in Demonology, their attitude towards witches, and the control of human affairs by the stars, was on a plane with their belief that birds hibernated in the mud at the bottom of ponds and that the charcoal resulting from burned toads could cure all manner of skin diseases. "On the one hand, there existed intense mental activity and interest in the field of religion and theology; on the other

[1] *Op. cit.*, p. 70.

hand, indifference and opposition in the field of art, ignorance and superstition in the field of science."[1]

The curriculum enforced by law in the elementary schools of Massachusetts from 1647 to 1789 included only reading and writing. At the latter date, arithmetic, the English language, orthography and decent behavior were added. Down to a few decades ago, the curriculum of the state school was confined, for the most part, to the school arts, reading, writing, spelling, arithmetic, geography, and history, the latter two subjects being reduced to a brief compendia of names and dates to be committed to memory by the pupils.

From this narrow concept of the curriculum, the pendulum in our day has swung to the opposite extreme. The curriculum has been so enriched of late that it taxes severely both teacher and pupil. One tendency is to continue adding subjects to lengthen the course, and, if necessary, to make it more elective. But here and there a voice is heard in opposition. It is claimed that too many things are taught and too little real teaching of the pupil is done.

The pivotal question in this debate seems to be: What is the course of study supposed to accomplish? If its aim is to fit the boy or girl for some particular line of work, such as a trade or one of the mechanical arts, then the best plan is to make a place in the curriculum for every branch of knowledge that may possibly prove helpful in a future occupation. If, on the other hand, the main object of the school is to secure breadth, culture and power, to develop individual capacity and thus enable the pupil to make a judicious choice of his subsequent career, the problem is not so much the addition of new subjects as

[1] Parker, *op. cit.*, 71.

the selection of the subjects best adapted to the purpose of the school and the proper teaching of the subjects selected.

The latter view prevailed in the medieval schools which insisted on a thorough drill in the seven liberal arts before the student was permitted to take up advanced work in special and professional lines. The growth of the natural sciences during the last four centuries has had two effects: it has increased the number of subjects to be taught, and has made specialization a necessity for the student who desires to bring his own contribution to the development of any science. The work of investigation carried on in the university makes continually fresh demands upon the preparatory schools. In this country, the student is obliged to enter as early as possible upon his life work in business or one of the professions, hence the tendency to shorten the college course or to eliminate it altogether, and, as a result, the tendency to crowd the school curriculum. The need of adjustment between elementary schools, secondary schools, and the university is at once evident, as is also the need of correlating the various school subjects, and both of these problems are receiving increased attention at the present time.

It would seem that the settlement of this whole problem must be achieved in the light of our growing knowledge of genetic psychology. From the advances in this field thus far made, the conviction is reached that education does not consist in loading the memory with details nor in forcing the pupils to learn things that are devoid of interest. On the side of affective consciousness, the conviction is gaining ground that moral training should not be given by prohibitions that, too frequently, suggest wrongdoing so much as by the positive teaching of what is right, reinforced by attractive concrete examples.

Progress in educational science is gradually establishing a number of guiding principles for the selection of teachers and for the shaping of curricula. These principles, however, are not new, nor is their operation of recent date. They may be found in their most perfect embodiment even at the present day in the liturgy and organic teaching of the Catholic Church, and they have always exerted their influence more or less directly and strongly upon the curricula of all her schools, whether elementary or advanced.

The Church's direct mission is, of course, to teach religion, but the religion she teaches is not a thing apart from life. Her mission is to teach the religion of Jesus Christ which was meant to redeem mankind from sin and sorrow, from the narrowness and harshness of the Scribe and Pharisee, no less than from the weakness of human flesh. The religion of Jesus Christ must enter the home, it must sanctify and render enduring the tie that binds man and wife together and consecrate their sacrifices for their offspring and protect the right to life and happiness of even the unborn infant. It teaches children their duty of love and obedience to their parents and enforces the obligations of parents to protect and guide in the paths of virtue the children given to them by God. Nor does religion in its teaching remain within the home. It enforces the sanctity of the oath, the binding character of the contract, and the inviolable laws of equity in the government of man's temporal possessions. It insists that every man shall discharge his duties towards the state, towards his native city, and towards his fellowman in all the multitudinous relationships, spiritual and temporal, that bind the children of the Church into solidarity.

The Church, in her teaching, prepares man for a life with God hereafter, but since this world is of God's making and designed by Him to give the requisite preparation for the life to come, the Church finds it set down in her duty to teach man how to live in this world in accordance with the eternal laws of justice and mercy, since it is only in this way that he can be properly prepared for the life to come. In her view, the best preparation for the hereafter demands the best living in the present. While she expounds supernatural truth and supernatural law, her first concern is to see that natural law is understood and obeyed by her children, for she has ever regarded the natural as the foundation of the supernatural.

With such a view of life, the narrow curriculum of the early Prussian *Volksschule* and of the New England Puritan School is wholly incompatible. While our Catholic schools have, at various times since the Reformation, been more or less directly affected by the narrow religious or the wholly secular character of the common schools of this country, the Church has always striven to maintain her own ideals, which call for a full and abundant life of the imagination and of the heart no less than of the intellect.

From the earliest Christian times, we find the Church insisting on the artistic side of life. She aims at cultivating and uplifting the feelings and emotions, hence she insists upon the teaching of music in her liturgy. Keenly sensitive to the value of dramatic presentation, she developed her liturgy to show forth the constitution of human society, the relationship of various classes to each other, the obedience, reverence and cooperation which each one owes to his superior and which all owe to God. The beauty of her temples, the illumination and

decoration of her altars, the tapestries of her sanctuaries, the artistic and symbolic character of the vestments of her ministers, fostered in all the people a love of art and warmed into glowing life the artistic genius of her children.

The miracle play and the tournament show the efflorescence outside the sanctuary of the spirit of her teaching. Nor did the Church's care for things of art and literature lead her to neglect the treasures of ancient civilizations. She preserved the classics and cherished the remnants of pagan art which survived the storms of the migrations. Her churchmen were leaders in the revival of pagan letters and art during the period of the Renaissance, and in spite of the abuse and persecutions which she frequently met with at the hands of Protestants in later days, because of her love for art and letters, she has never relinquished her claim or ceased to insist that it is her business to teach religion in such a way as to render it a vital influence in every department of life. She feels that it is her duty to teach every branch in the curriculum since nothing can be understood by the pupil as it is, unless it is understood in the light which religion sheds upon it. Without God, the world consists of a multitude of fragments, and where God and religion are omitted from the curriculum, nothing else that the curriculum contains can be presented to the pupil as it is, since it cannot be presented to him in its relation to God and to the totality of created existence. It is not, therefore, for the sake of religion alone that the Church insists that religion and the so-called secular branches shall not be separated in her schools.

When Horace Mann laid the foundations of a state school system in Massachusetts, his first step was to exclude the teaching of religious dogmas from the cur-

riculum. The disintegrating principle of Protestantism had, among the Puritans, worked itself out to its logical conclusion in a multitude of disconnected and isolated schools which reached the lowest depths of inefficiency, both through the poverty of their curricula and the inadequate training of their teachers. It would appear, however, that Mann and the other educational reformers of the time, were not opposed to the teaching of religion. They seemed to realize the fact that religion is even more necessary for the public welfare than the other subjects of the curriculum, but it was their judgment, and the judgment of those who came after them, that religion could be taught effectively in the home and in the church, and that it should be taught in these institutions rather than in the school. They seemed to have no realization that the banishment of religion from the curriculum would weaken and disintegrate its remaining elements.

The Catholic Church, however, did not concur in these judgments, and, as we have seen, she set to work immediately and vigorously to build up a school system of her own in this country. In doing this, the effective teaching of religion and of morality was her primary motive. She did not believe that these could be taught effectively when separated from the teaching of secular subjects and hence she introduced into her schools those secular branches which were being introduced in the state schools, that her children might not suffer in any way in their temporal concerns through attendance at her schools.

But it is not in accordance with her purpose that these branches be taught in her schools in the same manner in which they are taught in the public schools. God must be restored to His place in text-book and teacher's instruction, hence both text-books and methods are demanded

for use in her schools which could not be used consistently in the public schools. When she teaches science in her schools, it must be in the light of higher knowledge, not that there is to be a conflict in the findings of science and the teachings of revelation, but, on the contrary, that the findings of science may be seen in their true perspective. When she teaches history, the saints must be retained in their true relationship to human events and human conduct. She does not and cannot teach morality as a system of abstract laws and regulations or as a maudlin sentimentality devoid of rational content and rational basis.

The relation between the subject matter of the curriculum and the growing conscious life of the pupil has been variously conceived. At one time, the subject matter seems to be valued chiefly as a means of securing mental gymnastic exercise. At another time, it is looked upon as food for the growing conscious life. Again, it is valued for its own sake or as an instrument of power and is simply to be committed to memory in order to furnish an objective rule by which human enterprise or human conduct may be measured. At present, under the influence of the psychological movement, there is a return to the concept of this relationship as manifested in the Gospel.

The content of the curriculum is related to the developing child-mind in a direct and vital way. It furnishes food to the mind, but it does more than this. It also includes definite guiding tendencies. This twofold aspect of the relation between the content of the curriculum and the mind of the pupil may be aptly illustrated in the teachings of our Saviour: "Not by bread alone doth man live, but by every word that proceedeth from the mouth of God;" and again, when He explains to His disciples the

meaning of the parable of the sower who went out to sow his seed, He tells them that the seed is the Word of God.

There is in education at present a decided swing away rrom the memorizing process, which grew out of the view that assigned as the reason for any item in the curriculum its value for adult life. It is commonly held today that, whatever value an item may have in adult life, the first test to be applied in determining its claim to a place in the curriculum concerns its relation to the growing mind of the child. The curriculum should provide the right kind of present experience through which growth is secured and this growth will in due time show its value in adult life.

"The education of the school is from one point of view plainly a process of development resulting from experience. As school experience differs in no essential respect from experience gained outside the school, so far at least as its effects are concerned, the entire development of a child, or of an adult, or even of a social group for that matter, may be regarded as an educational process, as indeed it is. This process is both natural and artificial; that is to say, it is the result, in the first place, of the operation of unconscious natural forces, of experiences which, however conscious and purposeful, are not entered upon with any thought of their educational value; and, in the second place, of experiences expressly designed to exert an educational influence."[1]

More and more educators are coming to realize that real education must be interpreted in terms of experience. The business of the curriculum, therefore, is chiefly to supply to the children the right kind of experience. The children may not be able to select profitable experiences;

[1] I. W. Howerth, *Educational Review*, January, 1917, p. 61.

the teacher and the curriculum must select for them during the sheltered days of their school life. This aspect of the problem was also frequently emphasized in our Lord's teaching. "By their fruits you shall know them"—"Because thou hast been faithful over a few things I will place thee over many things," all pointed to a fact of supreme importance which our educators are just beginning to realize. Education is not a mere knowing or remembering; it is preeminently a matter of doing.

In commenting upon the curriculum and school practices that have survived in the state schools in spite of the advance of pedagogical science, Professor Dewey says: "The physical equipment and arrangements of the average schoolroom are hostile to the existence of real situations of experience. What is there similar to the conditions of every-day life which will generate difficulties? Almost everything testifies to the great premium put upon listening, reading, and the reproduction of what is told and read. It is hardly possible to overstate the contrast between such conditions and the situations of active contact with things and persons in the home, on the playground, in fulfilling of ordinary responsibilities of life. Much of it is not even comparable with the questions which may arise in the mind of a boy or girl in conversing with others, or in reading books outside of the school. No one has ever explained why children are so full of questions outside of the school (so that they pester grown-up persons if they get any encouragement), and the conspicuous absence of display of curiosity about the subject matter of school lessons. Reflection on this striking contrast will throw light upon the question of how far customary school conditions supply a context of experience in which problems naturally suggest themselves. No amount of im-

provement in the personal technique of the instructor will wholly remedy this state of things. There must be more actual material, more *stuff*, more appliances, and more opportunities for doing things, before the gap can be overcome. And where children are engaged in doing things and in discussing what arises in the course of their doing, it is found, even with comparatively indifferent modes of instruction, that children's inquiries are spontaneous and numerous, and the proposals of solution advanced, varied, and ingenious."[1]

The religion which the Church insists on being taught in her schools she also insists shall be practiced in the school, in devotional exercises, in preparation for the worthy reception of the Sacraments, in acts of penance and mortification, in obedience and loving service to parents and teachers. Her religion is not a promulgation of laws to govern adult life alone; it has just as vital and just as direct a bearing upon the conduct of the child, and his sense of responsibility must be developed in relation to these obligations throughout the entire educative process. Nor, in her teaching, does she make the mistake of confining herself to abstract formulations. She constantly places before the minds of her children the lives of the saintly men and women who best illustrate the virtues of social life which she is striving to inculcate.

Foerster, in common with many other modern writers, points out the value of the Church's practice in this respect: "From this point of view the saints are of imperishable importance in the world of education. They illuminate and demonstrate the teaching of Christ in many and varied directions, at the same time linking it

[1] Dewey, Democracy and Education, New York, 1916, p. 182-3.

up with human life. In order to avoid every misunderstanding, I must make it clear that I do not ask Protestant ministers or teachers simply to take over Catholic doctrines, customs, or institutions. They cannot, however, afford to neglect the *psychology* and *pedagogy* which lie behind the Catholic system; these must be thoroughly understood and valued, in order that the broader view of life which thus results should give rise to something of a corresponding nature within the frame-work of the Protestant tradition. With regard to the question of asceticism; I should not expect Protestants to undertake the worship[1] of the saints, but they might well make the heroic lives and achievements of those men and women, who dedicated themselves to the Church, fruitful for Christian worship and for the development of will and character. Indeed we are driven in this direction by the simplest fundamental truth of all moral education—*the decisive importance of example.* 'Thou shalt' is indeed great and important: but not less important is the 'Thou canst,' which is forced upon us by a mighty and consistent example. It is indeed true that we need in the first place the perfect example of Christ Himself, in which the higher is revealed in its entire purity; but in another sense we need also the encouragement of personalities more closely related to our weakness and error, and who have nevertheless attained to inner freedom in so impressive a manner. . . . A modern philosopher (I refer to H. Von Stein, whose too early death was so deplorable) has drawn attention in his later works to the imperishable significance of the lives of the saints. Attracted to their study through Schopenhauer, he discovered behind every negation their

[1] Foerster here makes the common Protestant mistake: Catholics reverence the saints, imitate their example, and ask their intercession with God, but they do not worship them.

mighty positive element, their gift to the world and to those who live and struggle in it: 'In the highest and noblest,' he says, 'our experience is unfortunately confined to what is limited and inadequate. . . . They, however, experienced in themselves the absolute, and life is nothing when one has not in some fashion or another acquired this experience.'"[1]

The views here put forth by Foerster are shared by many other leading thinkers of our day. The late Professor Paulsen said of the volume from which we have just quoted: "In an age like ours, it is an inspiration to read such a book as that which Dr. Foerster has just given us: . . . the author has had the courage boldly to set up the traditional standards of conduct and morality in the face of all that is hollow, perverted, and would be exalted in modern life."[2]

The two principles which must guide us in modifying the curriculum of our schools are: first, the material presented must be such as may be readily assimilated by the pupils for whom it is intended; it must meet their present growing needs and carry them upward to a higher view. Secondly, the material must be of such a nature that when followed out to its final logical implications, it will present a conscious life in accordance with the model which we accept as the governing type of human life.

In the elementary school, particularly during the first six years of the course, nothing should be admitted which is so final and definite in form as to render it impossible for the child to transform it and lift it into the growing structures of his constantly developing mind. The building and development of the pupil is the only legitimate aim during this period. Experience and definite achieve-

[1] Foerster, Marriage and the Sex Problem, New York, 1912, p. 133ff.
[2] *Op. cit.*, v.

ment during these early years have value only in so far as they secure development. In the latter portion of the educational process, however, the curriculum must be so shaped as to include the instrumental knowledge required for the work in life that awaits the individual on leaving school. Moreover, the curricula of elementary and secondary schools should be so adjusted to each other as to avoid any break in the mental development of the pupils who may pass from the one school to the other. This applies, of course to the transition from the high school to the college, university, professional or technical school The details of the programme of studies may vary, but the fundamental principles governing the selection of the material cannot, though our comprehension of them may increase or diminish. The curriculum in the Catholic school, while designed to meet all these requirements, must be so arranged as to shape life into conformity with Christian standards of conduct and, at the same time, to impart efficiency in earthly pursuits.

Finally, the fact should not be lost sight of that Catholics are interested in the curriculum of our public schools and in everything else pertaining to them, for Catholics, in as full a measure as any others among their fellow-citizens, support the state schools and they share an equal measure in the responsibility of governing them. Catholics are not behind others in contributing to the educational progress of the state schools, but they cannot take over the curriculum or methods or ideals of the state schools into Catholic schools, for the simple reason that the ultimate aim of Catholic education is higher than that of the state schools. It includes within its scope all the legitimate aims of the state school, while the state school does not, and cannot, include the ultimate aim of Catholic education.

CHAPTER XXIII

THE TEACHER AND HIS TRAINING

The teacher is the central fact in the school and by far the most important factor in its work. Properly constructed buildings and good equipment in furniture, blackboards, charts and library count for much, but it requires the teacher to put these agencies into effective operation. This is true of all schools but it is preeminently true of the elementary school where the personality of the teacher is an all-important factor in shaping the character and developing the fundamental virtues of the children. The teacher should have an easy mastery of the subject matter of the curriculum, and, if he is to accomplish his work economically, he must have a theoretical and practical knowledge of educational science.

The most elaborate equipment will necessarily fail to accomplish results where the teacher is lacking in the academic and professional training required for his task and, even if he possessed these requirements, should he be found wanting in the fundamental social virtues, the school that relies upon his services cannot give an effective training for citizenship or for membership in the Church. These truths are universally recognized today and strenuous efforts are being made on all sides to procure suitable teachers. The method employed, however, by the state system differs radically from that followed by the Church. Writers on the schools of colonial New England present a rather sad picture of the teacher in the Puritan schools of those days and of the results achieved. Writing of the Boston schools in the year 1800, Parker says: "While its schools were not as good as those of some of the neighbor-

ing towns, they were much better than the great majority of the village and rural schools which were kept by temporary teachers, generally by a man in winter for about two months, and by a woman in summer for two months. The Boston teachers, as a rule, were engaged permanently in teaching. The 'double-headed' system which existed in Boston was an interesting survival in separate buildings of the medieval and Reformation types of schools. . . . When it was proposed to abolish the double-headed system early in the nineteenth century 'the reading masters were found as incompetent to teach penmanship as the writing masters had always been to teach anything else.' "[1] A little further on, the same writer makes the statement that "two-thirds of the children's time was wasted by poor equipment and poor methods," adding: "The traditional methods of instruction were so wasteful that children would attend school for years and get only a smattering of reading and writing."[2] The individual method was still in use. The children were taught as individuals, not as groups. "Very little of the teacher's activity was actual instruction; it was simply hearing recitations. Giving of information by the teacher or inductive discussions with groups of children were almost unheard of. In arithmetic the memorizing of number combinations and of scores of rules to be followed mechanically in computation was the characteristic method."[3] It should be remembered that this description applied to the state schools of New England down to the days of Horace Mann in the middle of the nineteenth century, while the Christian Brothers and other Catholic teaching communities had been following the advanced method

[1] Parker, Hist. Mod. Elem. Educ., Boston, 1912, p. 86.
[2] *Ibid.*, p. 91.
[3] *Ibid.*, p. 90.

described in a preceding chapter for nearly two centuries. Before the close of the seventeenth century, St. John Baptist de La Salle had established his Institute to give academic and professional training to the teachers in the elementary schools of France. He had introduced the "simultaneous method" and the graded system and, after giving to the future teachers a training in theory, gave them a training in practice-teaching under competent masters before sending them out to take up the work of elementary education.

The difficulties of obtaining for the state schools a supply of teachers with the right native qualifications and proper academic and professional training have not yet ceased to exist in our midst, as may be seen from the following testimony furnished by so competent an authority as Ellwood Cubberly. Speaking of the earlier methods of the selection of teachers, he says: "The passing of a simple written examination, given by an examining committee or by the county superintendent, and the issuance of a teacher's certificate, answered all demands on the scholastic and professional side. On the personal side, which was the important one, the members of the teachers' committee of the school board, as well as the other board members, were visited by the different applicants and importuned by their friends; the personality and special needs of the applicant were given due consideration; and, consciously or unconsciously, the personal friendships, church relationships, and party affiliation of male relatives all played their part in determining who were to be selected by the board. The teachers' committee finally made its selections, formally reported the list to the full board for approval, and the board either adopted, or modified and then adopted, the report. The

schools being regarded in large part as a local undertaking, and the theory that anyone could teach who could govern being the chief pedagogical belief of the time, it followed that outsiders were seldom selected, and that the bright and attractive graduate of the last class in the local school system, the daughter of the estimable citizen, the young lady who needed to help her widowed mother, or the widow or the deserted wife of a former local resident, were the natural persons selected to share the public bounty and to teach the children of the community in the schools. Where the schools had been taken possession of by the local politicians, some local boss, instead, had to be seen, and he dictated all the appointments made by the board. This earlier method has persisted in whole or in part in many of our American cities, but it is now being rapidly replaced by one more likely to result in the selection of a better type of teachers for the schools."[1]

In the new method here referred to, the superintendent, who should be an educational expert, is charged with the chief responsibility in the selection of teachers. This, it is hoped, will result in securing better teachers. School boards, it is said, have too little knowledge of pedagogy and are subject to too much local pressure. "Ultimately the children in the schools and the community as a whole pay the price of the school board's attempt to exercise such a professional function." When the board, instead of the superintendent, selects the teachers, "the local candidate has the inside track under such a plan, can bring plenty of local pressure to bear, and usually secures the position. This tends to keep the home schools for the home girls, when as a matter of fact the home girls are not the equal of girls equally well prepared from the outside, unless

[1] Cubberley, Pub. Sch. Admin., Boston, 1916, p. 199 ff.

they have gone away from home for their training. It is an important part of the training and life experience of a young person to go away from home, to get new ideas from others and to be influenced in new ways, and to come in contact with new people and gain new points of view. In no line of professional work is this more important than in teaching."[1]

The superintendent's power in the selecting of teachers varies at present in different communities. "In some the salaries paid will be so low that trained teachers from the outside cannot often be attracted to the service, and the home girls accordingly come to expect the vacant positions as soon as they have finished the high school course. In other communities the salaries may be high enough, but the community ideals for public education are low, and the board of education has never attempted to change conditions by setting standards which ought to have been enforced. In still other communities good salaries and good educational and professional standards, strictly enforced, make the work of selecting new teachers an easy matter."[2]

Passing from an account of the actual conditions to a statement of the ideal which it is possible to attain, the same author lays down seven guiding principles of which the following are the first two: "(1) Schools have been ordered established by the state for the education of the children of the state, and each child in the community is entitled to as good an education and as good teachers as the community can afford. (2) Only the best education within the means of the community should be provided, and this can be the case only when the teachers and

[1] *Loc. cit.*
[2] *Loc. cit.*

supervisors employed are the best it is possible to obtain with the money at hand."

In both of these principles, the attracting force is recognized as the salary, and in the principles that follow, which deal with the attempt to free the schools from local influence, the same objective is evident. The fifth principle states: "(5) Teachers within the system must keep themselves professionally alive and render good community service as a condition to the retention of their places." Thus, each of the seven principles proposed to govern the selection and retention of teachers relies for its effectiveness on the financial motive.

Mr. Pritchard, former president of the Carnegie Foundation, in a public address delivered in North Carolina some years ago, formulated this situation when he declared that, outside of the schools conducted by the religious communities of the Catholic Church, teaching was strictly an economic function.

The state school systems, in spite of the authority and the funds at their disposal, have absolutely failed to call into existence a force of professional teachers whose motives in teaching are lifted above personal financial gain. Nor need this surprise anyone. The schools are limited in their scope to the teaching of secular branches and in their aims to temporal and economic success. The teachers are obliged to look out for their individual support and the support of those depending upon them, and, like other human beings, they must make provision for a "rainy day," for sickness and old age. All the forces playing upon them lift the financial motive into the central place. It is to be hoped, however, that altruistic and social motives may be added and stimulated as far as possible but in such a system they must remain subordi-

nate to the main issue which is measured in terms of dollars and cents.

The individual well-being of the teacher as an aim is, however, a disintegrating force and increases the difficulty of those who labor to produce a system of schools that shall operate to produce disinterested citizens and a socialized community.

In the matter of the academic and professional standing of the teacher, the state school system is less hampered and, since the days of Horace Mann, there has been steady progress in the establishment of normal schools and training schools for teachers. These institutions are free and a one or two years' course in normal school is now required in most instances as the condition for entering the teaching force, particularly of our city systems, the normal school course to be preceded by a successful course in a standard four-year high school. At present, however, a considerable portion of the teaching force of our public schools have had much less training than this.

The economic situation in this country during the last few decades has operated to prevent intelligent and ambitious men from entering the teaching profession. From 92 to 96 per cent of the teachers in the elementary and secondary schools in the more thickly populated portions of the country are women. This circumstance is an important factor in preventing the development of a professional spirit in our teaching force. A man might be presumed to take up teaching as a life work, but the great majority of girls who take up the work of teaching do so with the hope that it may end after a brief period of service. They naturally look forward to marriage, which, in most instances, disqualifies them for the work of teaching. Statistics compiled by the Bureau of Education a

few years ago show that the average teaching life of a woman in the public schools of the United States is less than five years. If the undetermined percentage of women who remain permanently in the service be subtracted, it will be seen that the great majority of our women teachers remain scarcely two years in service and during this time they are probably deeply occupied with concerns outside the schoolroom.

Through efficient academic and normal school training, the state system may hope to obtain a body of teachers competent to aid in the attainment of several of the aims which the state systems should secure. Among these may be numbered physical education, properly balanced development, and economic efficiency. Such a force may conduct efficient drills along various lines. They may help to sharpen the wits of their pupils and to supply them with information and aid them in the attainment of skill but other educational aims are more difficult of attainment with a body of non-professional teachers. Prescinding for the present from the ultimate aim of Christian education, which the state lays no claim to achieve, the state school system, besides attaining the three ends mentioned above, should aim at securing individual culture and social efficiency, and it should educate for worthy citizenship.

The realization of these latter three aims calls for something besides knowledge and skill in the teacher. The teacher's motives, his personality, and the obvious purposes of his life have more to do with awakening in the pupils these moral qualities than have drills or definite courses which deal directly with the cognitive faculties. However well, or even necessary, it may be that the school should minister to the development of skill and the culti-

vation of the intellectual faculties, whatever views may be entertained by different schools of philosophers concerning the value of the various educational aims, there is practical unanimity that under a form of government such as ours education for worthy citizenship must maintain its place in every school that undertakes the training of the future citizens of the republic. Our public school system has been created by the state and is being maintained by our tax payers for the attainment of this aim. The masses of our people are not born to be subjects governed by a ruling class. The perpetuity of our free institutions and the permanence of our government demand that our children, after leaving school, shall take their places in a body of citizens who are capable of enacting just laws, of administering them wisely and of obeying them faithfully. Ours is a government of the people, for the people and by the people.

The state supports its schools to the end that the children may grow up into self-supporting, self-respecting and efficient members of society, into men and women who, instead of becoming a public burden will contribute their share to the public welfare, into men and women, who, instead of demanding armed force to prevent them from indulging in acts of dishonesty, will promote public morals by the integrity of their own lives, into patriotic citizens who will be ever solicitous for the public welfare and who will always place the public good above all private gain. In a word, the ultimate aim of state education is, and must always be, to educate for citizenship. As far as the state is concerned, all other educational aims are either indifferent or secondary, but she must insist upon education for citizenship not only in her own schools, but in all other schools which undertake to train her future citizens.

From the considerations here set forth, it is evident that the teacher is the main factor in the attainment of the state's aim in education. The realization of this aim demands the cultivation in the pupils of the fundamental virtues and qualities set forth in a previous chapter,[1] among which disinterestedness occupies a prominent place. Nevertheless, the state is obliged to use self-interest as the main motive in attracting her teachers and keeping them in her service. The Church, on the contrary, requires of each individual who seeks a place in any one of her teaching communities that he first relinquish all ownership of property and all claim to monetary compensation for his future labors. By a vow of poverty, he frees himself once and for all from the control of the financial motive and is enabled to devote his life and his services unreservedly to the children who may come under his care without thought of personal gain or benefit in return. The force of this example, acting on the children day by day, is more potent in its socializing influence and in the production of disinterested citizenship than any formal teaching of morality could be. In this respect our religious teachers imitate, as far as human frailty will permit, the example of the Master who spoke of Himself as the Good Shepherd who laid down His life for His flock and who said to His disciples: "My little children, love one another as I also have loved you."

The Church is not content with selecting for her teaching force men and women whose social consciousness is so highly developed that they joyfully renounce all earthly possessions in order to devote their energies throughout the rest of their lives to the service of others irrespective of race or creed or country. In the novitiate the candidate

[1] See above, p. 244.

is not only given time to make sure that his call to the religious life is permanent, but he is exercised in the practice of the six great fundamental virtues for two or more years before he is allowed to take his place in the active teaching force. Moreover, this training follows him through life, as he is constantly subjected to the rule of the community and constantly called upon to practice the virtues in question.

In the Catholic school system, the supply of teachers is secured through the operation of principles which eliminate all but the chosen souls who possess in a high degree the qualities discussed above as pertaining to good citizenship. Not content with these qualities as they appear in the young men and young women of the world, she carefully trains them with a view to the further development of these qualities and takes every means to preserve and continue the development of these same virtues throughout the lives of her teachers. There is no other society in the world that operates so effectively to produce in its membership the great fundamental virtues of human faith and hope and brotherly love, of disinterestedness, self-control and loyalty to law as the religious community in the Catholic Church. The candidate not only gives up earthly possessions, but is called upon to renounce the high privilege of parentage and home and independence. He must obey not only the commandments and the fundamental laws, but the Gospel counsels of perfection. His love must not only be purified of self, but of family and nationality, it must be broadened until it embraces all mankind, strengthened until it supplies sufficient motive for any sacrifice, and lifted up from earth until it is transfigured by the love of God. The Catholic school supplied with teachers of this char-

acter should prove incalculably more efficient than the state school in promoting worthy citizenship, nevertheless, the Church has never accepted education for citizenship as the goal of the educational process and she never can accept it as the ultimate aim of the education given to her children. The Church recognizes in each child a future citizen, but she also recognizes in him a child of heaven who must grow to maturity and live out a brief span with his fellows in the industrial, social and civic environments of his day and country.

The state, through her educational system, seeks to transmit to the rising generation the institutions and spiritual treasures built up by the present and past generations. All advance of society is to be looked for in the activities of the adult population. In the Catholic system, on the contrary, the deliberate purpose is to lift adult society to a higher level through the Catholic school. This purpose she seeks to accomplish through her teaching communities. The secular teacher brings with him into the school, daily, the atmosphere of the world in which he lives; the women who form such an overwhelming majority of the public school teachers are an integral part of the social and economic world of their day and they share its spirit and its progress. The teacher, however, is seldom in the forefront of social or economic progress; her professional duties withdraw her during her working hours from the actual strife, hence she cannot transmit the latest achievements of society, the things that are actually growing where the struggle is intense, and no other source of inspiration and guidance is provided for her. The religious teacher, on the contrary, is withdrawn from the world and lifted above its strife and turmoil. Through daily religious exercises and the practice of the

rules of the community and the virtues enjoined, she brings the redeeming influence of Jesus Christ and of His saving teachings to bear upon the children who come under her influence, thus implanting high ideals and thus shaping their lives to standards that far outrun the highest achievements of the world.

The Catholic Church, both through her organic teaching and through her schools, has ever continued her work of redeeming society. She is not, and she cannot be, content to transmit the achievements of one generation to another. She has a treasure to impart that is not produced by men, a civilizing and socializing influence to wield which has its source in Jesus Christ. The Church finds that her educational aims are best achieved through the organization of her teachers into religious communities which are governed by the counsels of perfection, and it is hard to see how she could have achieved her results in any other way. The world, left to itself, loses the spirit of sacrifice and abnegation. It condemns humility and erects individual aggressiveness into its ideal. How could we expect from such a source the building up of our Catholic school system in this country, which in a few generations has grown to such magnitude? Where did our Catholic people get the spirit of generous self-sacrifice which led them, after being compelled by law to support state schools, to build up out of their own scanty means the vast system of schools that, at present, continue the work of the Church's teaching in our midst? From what other source might we expect such a spirit of devotion to high ideals as is manifested by the 30,000 men and the 80,000 women who, as members of the parochial clergy or of religious communities, devote their lives to the public welfare and to

the salvation of souls without thought of personal remuneration?

The influence on the children exerted by the high ideals of the religious life of their teachers is far-reaching and many-sided. This is commonly understood by Catholics, but non-Catholics frequently fail to understand either the ideal or its effect. Foerster is a striking exception to this rule. In a chapter entitled "The Indispensability of the Ascetic Ideal" in his volume on "Marriage and the Sex Problem," he evinces a deep penetration and a sympathetic insight into the attitude of Catholics and of the Church in this all-important matter. The chapter should be given the widest possible circulation among our educators as an antidote for their misconceptions of the religious life of our Catholic teachers. We add here a few striking passages which bear directly on the theme in hand:

"To secure the mastery of man's higher self over the whole world of animal desire is a task, however, which demands a more systematic development of will power and the cultivation of a deeper faith in the spiritual destiny of humanity than are to be found in the superficial intellectualistic civilization of today. To achieve such a result it will be necessary not only to have recourse to new methods and new ideals, but to make sure that we do not allow what is valuable and in any way worthy of imitation, in the old, to be forgotten. The ascetic principle, in particular, is today in danger of being undervalued.

"*Asceticism should be regarded, not as a negation of nature, nor as an attempt to extirpate natural forces, but as practice in the art of self-discipline.* Its object should be to show humanity what the human will is capable of performing, to serve as an encouraging example of the conquest of the spirit over the animal self. The contempt which has been poured upon the idea of asceticism in recent times has contributed more than anything else towards effeminacy. Nothing could be more effective in bringing humanity

back to the best traditions of manhood than a respect for the spiritual strength and conquest which is symbolized in ascetic lives.

. . . . . .

"By the ascetic ideal is meant that view of life which does not simply regard self-conquest as a stage in self-development, but which assigns a definite and essential function in the evolution of humanity to men and women who shall demonstrate, in one sphere or another, the possibility of living a life of continual and complete abnegation—not in order to make a more natural life appear contemptible, but with the express purpose of enriching life and preserving it from degeneration by means of heroic examples of spiritual power. Properly to understand the significance of asceticism, it should be remembered that natural life does not flourish unless the spirit retains the upper hand; and since we are surrounded for the most part by striking examples of lives in which the spirit plays anything but a leading part, it is in the highest degree desirable that living and striking examples of men and women who have fully freed themselves from the distraction of the world and the domination of natural desires should be continually before our eyes."[1]

Professor Foerster is here dealing with the problem as it appears in adult society. Its force, when considered in the school, is even more striking, for the younger the child is, the more profoundly is he influenced by example, and childhood and adolescence in particular stand in gravest need of the constant presence of examples of self-conquest to the end that they may gain a rational control of the tide of human passion that is rising within them.

The alarming spread of sex immorality and sex disease among public school children has, in recent years, produced a strong and widespread movement which seeks to remove this evil by the teaching of sex hygiene in the schools. However, where the remedy has been tried, it has usually been found ineffective in preventing the evils and, on the contrary, a prolific source of disseminating

[1] *Op. cit.*, pp. 127–9.

many of the worst practices which it was sought to control. This moral breakdown is not confined to the United States. Foerster, at the time of writing this work, was a member of the teaching staff at the University of Zurich, and he is speaking more of the conditions of Europe than of this country when he says:

"Ignorance of the awful dangers latent in our weak nature is very commonly to be met with in epochs still powerfully influenced by great traditions of moral discipline. Those born in such periods are apt to be lacking in personal acquaintance with the darker side of human nature, owing to the very state of discipline into which their fellow citizens have been brought. Hence they fail to realize what a laborious taming of passion has preceded the comparative security they find around them. Time will soon give us a demonstration on a large scale of what men can be like when undisciplined.

"In the sphere of sex a rapid disintegration of character is already going on. The effect of the increasing laxity in this direction will make itself felt in other directions. A disrespect for definite moral standards in this region will tend to initiate a spirit of license in every other department of social and moral life. It is astounding with what rapidity all moral convictions are today breaking down in the minds of vast masses of the people. This would not occur if the deepest foundations of these convictions had not been long undermined. The suggestive force of tradition continues to be operative in an age which has largely abandoned the positive belief lying behind the tradition, and this deceives us as to the real extent of the disintegration. The first vigorous push shows us how far the process of undermining has gone" (p. 129).

This was written a few years before the outbreak of the European war and time has already cast its light on the prophecy which the passage contains. The theme of interest here, however, is the remedy which he suggests for the evils which he so clearly sees:

"Without most people being conscious of the fact, one of the main foundation stones of our traditional moral culture has been the constant presence in our midst of great personalities illustrating in

their own lives the highest possible degree of spiritual freedom, the complete conquest of the spirit over the world and the senses. The presence in society of such spiritually dedicated characters is a source of psychic inspiration for the whole community, and a constant and courageous protest against the smug Philistinism of the men of the world. The true building up of moral ideals and the chief stimulus towards their fulfilment come from the embodiment of the spiritual life in its most perfect form in heroic human life, and not from any kind of merely intellectual demonstration

"A belief in the spiritual destiny of man—no mere dream, but a belief confirmed and strengthened by the lives of great spiritual geniuses—is the first necessity in arousing and developing a spiritual conscience in the human race, a sense of the bounden duty of resisting the lower self. Unless this feeling has been brought into being, morality itself has no deep soil in which to take root. There could be no greater aid to its creation than the spectacle of men who can pursue spiritual things with a more powerful passion than that with which men of the world follow after gold, fame, and women.

. . . . . .

"It is an eternal fact that humanity continually scorns and rejects the high, and yet at the same time dimly realizes that it cannot master its own life without the illumination and power coming from thence. Therefore the demonstration of a complete overcoming of the world is in no sense an attack upon life—rather is it a contribution towards life. In the face of the immense suggestive power of wealth, of ambition, and of every kind of sensuous temptation, humanity cannot dispense with the counteracting suggestion of a life which has made itself absolutely independent of all these things" (p. 130).

After pointing out the great value of the examples left us by the saints in our struggle with human passions and human temptations, Professor Foerster returns to the rôle played by the ascetic lives of our religious communities.

"What has just been said with regard to the ascetic view of life in general must apply also to our valuation of the religious orders. In the lower Franciscan Church in Assisi, we see a representation of the threefold sacrifice, poverty, chastity, and obedience, with which Chris-

tian asceticism opposes the strongest passions of humanity. These three sacrifices give those living in the world and struggling with the desire for material gain, with sensuality and with personal ambition, a continual reminder of their spiritual origin and a continual assistance against the over valuation of external things. The earnestness and reality of the spiritual world is strengthened, in an altogether indispensable fashion, by the fact that there are and have been men who voluntarily denied themselves all these things, devoting themselves entirely to spiritual contemplation or Christian charity. And in face of the extraordinary tangibility of outward claims and temptations, what could be more necessary than such a strengthening? In the case of the energetic races of the Western World, occupied as they are so largely with outward and politico-economic activities, such an opposition—on the part of a whole class—to the over valuation of material things is of the most imperative importance—not least for the health and true productivity of our worldly civilization itself" (p. 139).

A cloud of witnesses might be summoned who would bear testimony to the uplifting effect of the ascetic lives of our religious teachers. In this fact we find a large measure of the strength of that Catholic influence which keeps our people from the divorce court, which preserves the purity of our family life and the religious faith and ideals of our people. Catholics have made great sacrifices in this country to upbuild and support a Catholic school system, but the returns made have been great beyond all proportion to the cost.

It is true that our young people here and there suffer some weakening of the moral fiber either through attendance at non-Catholic schools or through association with children who, in the schools they attend, are lacking in moral reinforcement which it is the blessed privilege of so many of our children to receive from our religious teachers.

The religious novitiate specifically aims at the develop-

ment of the ascetic character as understood by Foerster, but before the candidate is permitted to enter the school as a teacher, he must receive a normal training which is usually imparted during the second and subsequent years of the novitiate. Each community, in the absence of any other standard, fixes for itself the academic qualifications of its membership, and it also fixes the standard of professional attainment, but it lies within the jurisdiction of the Ordinary to fix standards for those religious teachers who undertake the work of teaching in the elementary schools of the diocese. A special body of examiners is frequently appointed to examine and license the teachers. In certain of our dioceses, at present, no teacher is allowed to take up work in the parochial schools unless she has had a satisfactory course of four years in a standard high school and, in addition thereto, a prescribed course in the professional subjects. It is to be hoped that this standard will soon be universal in this country.

Professor Cubberley, in the passages previously cited, pointed out the disadvantage of having local girls teach the local schools and called attention to the fact that this practice is still widely prevalent. This evil does not exist in the Catholic school system. The young women are taken away from home for two or more years of training, usually at a distance from home surroundings and in an unaccustomed social environment, before they are allowed to take up the work of teaching, and then it rarely happens that they are permitted to teach in the home school.

The teaching communities would gladly give their candidates a much more thorough training for the work of teaching, along both academic and professional lines, were it possible for them to do so. Their progress in this

matter is, and has been, retarded by two main factors—the want of sufficient funds and the want of sufficient members to do the work that is required of them. In this connection it should also be added that in spite of the best intention to the contrary, lay teachers must be employed in many of our Catholic schools until such time as a sufficient number of religious can be obtained for the work.

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